



US EPA RECORDS CENTER REGION 5



428090

January 29, 2010

Mr. Sam Chummar  
Work Assignment Manager  
U.S. Environmental Protection Agency (EPA)  
77 West Jackson Boulevard (SR-6J)  
Chicago, IL 60604

**Subject: Oversight Summary for January 18 through January 21, 2010 (Week 2)  
Plainwell Mill Site, Operable Unit No. 7 of  
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site  
Plainwell, Allegan County, Michigan  
Remedial Action Contract (RAC) 2 No. EP-S5-06-02  
Work Assignment No. 041-RSBD-059B**

Dear Mr. Chummar:

SulTRAC has prepared the enclosed summary to document Phase II remedial investigation activities at the above-referenced site from January 18 through 21, 2010 (Week 2). Weyerhaeuser Company is the potentially responsible party for the site, and Conestoga-Rovers & Associates, Inc. (CRA), is its environmental contractor. Appendix A of this summary contains a photographic log of the investigation activities. Appendix B contains SulTRAC's field oversight notes. Appendix C contains SulTRAC's field sample log. Attachment 1 contains CRA's site maps with proposed sample locations.

If you have any questions about the enclosed summary, please call me at (312) 201-7491.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey J. Lifka".

Jeffrey J. Lifka  
Project Manager

Enclosure

cc: Norvelle Merrill-Crawford, EPA Contracting Officer (letter only)  
Ron Riesing, SulTRAC Program Manager  
File

**ENCLOSURE**

**OVERSIGHT SUMMARY  
FOR JANUARY 18 THROUGH JANUARY 21, 2010 (WEEK 2)  
PLAINWELL MILL SITE  
PLAINWELL, ALLEGAN COUNTY, MICHIGAN**

(10 Pages)

**OVERSIGHT SUMMARY  
FOR JANUARY 18 THROUGH JANUARY 21, 2010 (WEEK 2)  
PLAINWELL MILL SITE  
PLAINWELL, ALLEGAN COUNTY, MICHIGAN**

**SulTRAC Oversight Personnel:** Kristi Root, Tracey Koach, and Robert Kondreck  
**Reporting Period:** January 18 through 21, 2010 (Week 2)

**INTRODUCTION**

As requested by the U.S. Environmental Protection Agency (EPA) under contract number EP-S5-06-02 and work assignment number 041-RSBD-059B, SulTRAC conducted oversight and split sampling for Phase II of the Remedial Investigation (RI) for the Plainwell Mill Site, Operable Unit No.7 of the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site in Plainwell, Michigan. Weyerhaeuser Company (Weyerhaeuser) is the potentially responsible party (PRP) for the site. Conestoga-Rovers & Associates, Inc. (CRA) is the environmental consultant to Weyerhaeuser.

As requested by EPA, SulTRAC began oversight activities at the site on January 11, 2010. This report summarizes SulTRAC's oversight activities and documentation of the PRP's Phase II activities during Week 2 of the RI from January 18 through 21, 2010; issues and developments that arose during the oversight activities; and future activities. Appendix A contains a photographic log of Week 2's site activities, including Photographs 1 through 16. Appendix B contains a copy of SulTRAC's field oversight notes. Appendix C contains SULTRAC's field sample log. Attachment 1 contains CRA's site maps with proposed sample locations.

## RI ACTIVITIES

During the second week of RI oversight excavation conducted from January 18 through 21, 2010, SulTRAC observed CRA advancing soil borings, excavating test pits, conducting vertical aquifer sampling (VAS) of the groundwater, collecting surface water samples, and surging/purging groundwater from existing and newly installed monitoring wells. CRA maintained two subsurface investigation crews on site. One drilling crew (Drill Crew-1) conducted VAS on Monday and was replaced on Tuesday with an excavation crew. The second drilling crew (Drill Crew-2) advanced soil borings throughout the week. CRA personnel not assigned to a drilling crew conducted surface water sampling and surged/purged groundwater from the existing and newly installed monitoring wells, in addition to processing samples. Also, the drilling rigs were owned and operated by CRA.

During Week 2, CRA advanced 28 soil borings (SB-110, SB-108, SB-107, SB-101, SB-106, SB-111, SB-308, SB-113, SB-112, SB-114, SB-116, SB-117, SB-115, SB-119, SB-144, SB-145, SB-143, SB-142, SB-102, SB-118, SB-103, SB-120, SB-104, SB-122, SB-124, SB-126, SB-105, and SB-128); excavated 10 test pits (Test Pit-201, 202, 203, 301, 302, 306, 303, 307, 305, and 304); collected two surface water samples (SW-1 and SW-2); and re-installed one temporary VAS well (VAS-2). Samples collected by CRA and SulTRAC during week 2 include: 94 subsurface soil samples (CRA) with 22 split samples, in addition to two duplicates and one matrix spike (MS)/matrix spike duplicate (MSD) (SulTRAC); two surface water samples (SW-1 and SW-2) with no split-surface water samples (CRA); and two VAS samples (CRA) with one split sample (SulTRAC). Details for soil samples collected by CRA and SulTRAC are summarized in Appendix C. Sample locations are provided in CRA figures found in Attachment 1.

CRA collected (1) VAS groundwater samples for analysis for volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), and filtered and un-filtered metals; (2) soil samples from test pits and soil borings for analysis for VOCs, SVOCs, polychlorinated biphenyls (PCB), metals, Synthetic Precipitation Leaching Procedure (SPLP) metals, and general chemistry in addition to cyanide for selected soil borings; and (3) surface water samples for analysis for low-level mercury, methyl mercury, and hardness. SulTRAC collected (1) split VAS samples for analysis for VOCs, SVOCs, and filtered and un-filtered metals; and (2) soil samples from soil borings and test pits for analysis for VOCs, SVOCs, PCBs, metals, and cyanide. SulTRAC hand delivered soil samples to be analyzed for cyanide and metals, and water samples to be analyzed for metals, to its subcontractor laboratory, TriMatrix Laboratories, in Grand Rapids, MI. SulTRAC shipped all other split samples by overnight courier to an EPA Contract Laboratory Program (CLP) laboratory.



**Monday, January 18, 2010**

At 8:00 a.m., SulTRAC representatives Robert Kondreck, Tracey Koach, and Brian Malone arrived on site. The weather was overcast, with temperatures in the 30s degrees Fahrenheit (°F). CRA personnel on site included two drill crews (Geoprobe), three field technicians (David Rivers, Corrie Bondy, and Evan Varnas), and the field project coordinator (Jodi Dembowske). The field project coordinator was on site infrequently throughout the day. CRA collected VAS groundwater samples for analysis for VOCs, SVOCs, filtered and un-filtered metals; and soil samples from test pits and soil borings for analysis for VOCs, SVOCs, PCBs, metals, SPLP metals, and general chemistry, in addition to cyanide for selected soil borings. SulTRAC collected split VAS samples for analysis for VOCs, SVOCs, and filtered and un-filtered metals; and soil samples from soil borings and test pits for analysis for VOCs, SVOCs, PCBs, metals, and cyanide. Details involving sample identification and sample times are provided in Appendix C.

At 8:30 a.m., Drill Crew-1 began setting the temporary screen at the VAS location 2 (see Photograph No. 1 in Appendix A). Also in the morning, CRA continued to surge and purge new and existing monitoring wells using a high-volume pump (such as a Monsoon Pump). Drilling water used during monitoring well installation was removed and placed in a 200-gallon tote on the back of a CRA pickup truck (see Photograph No. 2 in Appendix A). Surging discontinued in new and existing wells after the water became visibly clear. A minimum of 10 gallons was removed from existing wells and a minimum of 28 gallons was removed from newly installed monitoring wells. Monitoring well surging/purging continued throughout the day.

At 9:30 a.m., Drill Crew-2 continued soil boring advancement in Area 1 starting at SB-110. Two samples were collected by CRA at this location: one from the 0- to 1-foot below ground surface (bgs) interval and one from the 8- to 10-foot bgs interval. SulTRAC did not collect any split samples at this location. Around 11:00 a.m., Drill Crew-2 mobilized to SB-108 and collected three samples (0 to 1 foot, 6.5 to 8.5 feet, and 8.5 to 10 feet bgs). SulTRAC collected one split sample at the 6.5- to 8.5-foot bgs interval. At 11:35 a.m., Drill Crew-2 broke for lunch.

By 9:55 a.m., Drill Crew-1 had stabilized water quality parameters at VAS-2 for the 26- to 30-foot bgs interval and collected a sample. SulTRAC collected a split sample from that location. CRA repeated the sampling process at VAS-2 for the 30- to 32-foot bgs interval. At 11:35 a.m., CRA sampled the 30- to 32-foot bgs interval. At 12:20 p.m., CRA and SulTRAC broke for lunch.

At 12:15 a.m., Drill Crew-2 returned from lunch and mobilized to SB-107. At SB-107 CRA collected three samples (0 to 1 foot, 6.5 to 8.5 feet, and 8.5 to 10 feet bgs). SulTRAC did not collect any samples. At 1:05 p.m., CRA mobilized to SB-101 and collected three samples (0 to 1 foot, 6.8 to 8.8 feet, and 8.8 to 9.5 feet bgs). SulTRAC collected a split sample at the 0- to 1-foot bgs interval. At 1:30 p.m., Drill Crew-1 began preparing to advance soil boring SB-308 using a jackhammer with a direct-push core barrel affixed to the end. A jackhammer was used instead of a Geoprobe at SB-308 due to accessibility issues at that location (see Photograph No. 3 in Appendix A). During advancement, CRA collected three soil samples (0 to 2 feet, 3 to 5 feet, and 7.5 to 9.5 feet bgs). Following completion of SB-308, Drilling Crew-1 discontinued operations and began preparing for site departure. In exchange for the Geoprobe, an excavator was delivered to the site in preparation for test pit excavations starting on Tuesday.

At 2:25 p.m., Drill Crew-2 mobilized to SB-106. CRA collected three samples (0 to 1 foot, 3.5 to 5.5 feet, and 8 to 10 feet bgs) with one duplicate sample at the 8- to 10-foot bgs interval. SulTRAC did not collect any split samples at SB-106. At 3:45 p.m., CRA mobilized to SB-111. CRA collected two samples, one each from 0 to 1 foot bgs and the 7- to 9-foot bgs intervals. SulTRAC collected one split sample from the 0- to 1-foot bgs interval.

Following completion of SB-308 and SB-111, CRA discontinued drilling activities and prepared samples for shipment. SulTRAC left the site at 4:45 p.m.

#### **Tuesday, January 19, 2010**

At 8:00 a.m., SulTRAC representatives, Robert Kondreck and Brian Malone arrived on site. Tracey Koach was on site frequently throughout the day but mostly prepared samples for shipment off site. The weather was overcast, in the 30s °F. CRA personnel on site included one drill crew (Geoprobe) and an excavator, three field technicians (David Rivers, Corrie Bondy, and Evan Varnas), and the field project coordinator (Jodi Dembowski). The field project coordinator was on site infrequently throughout the day. CRA collected soil samples from test pits and soil borings for analysis for VOCs, SVOCs, PCBs, metals, SPLP metals, and general chemistry, in addition to cyanide for selected soil borings; and surface water samples for analysis for low-level mercury, methyl mercury, and hardness. SulTRAC collected split soil samples from soil borings and test pits for analysis for VOCs, SVOCs, PCBs, metals, and cyanide. Details involving sample identification and sample times are provided in Appendix C.



Starting on Tuesday, CRA would have one crew operating an excavator for test pit investigations, and a second crew conducting subsurface investigations through use of a Geoprobe. At 8:30 a.m., the excavator was moved to SB-114 and began to remove soil to ease access to the soil boring location (see Photograph No. 4 in Appendix A). Starting in the morning, CRA began purging new and existing monitoring wells until water quality parameters had stabilized or 5 well volumes had been removed. CRA used a peristaltic pump to remove the groundwater from the well and measured water quality using a QED MP20 at a frequency of one reading per well volume. By 9:15 a.m., the excavator had finished creating an access to SB-114 and had begun using the skid-steer to create a pathway in the wooded area of Area 1 (see Photograph No. 5 in Appendix A). At 10:40 a.m., CRA finished creating a path in Area 1 and began preparing for test pit excavations. Excavation equipment used was a Komatsu (Avance PC200) excavator with a 4-foot-wide, 3-foot-deep bucket. At 11:00 a.m., CRA began excavating Test Pit 201 in Area 2. CRA collected two samples, one each from the 0- to 2-foot and the 8- to 10-foot bgs intervals. SulTRAC collected one split sample from the 8- to 10-foot bgs interval. After backfilling Test Pit 201, CRA and SulTRAC broke for lunch.

At approximately 8:30 a.m., the drill crew began advancing SB-113 to 20 feet bgs, collecting samples at the 0- to 1-foot and 8- to 10-foot bgs intervals. SulTRAC did not collect split samples at SB-113. At approximately 9:00 a.m., CRA mobilized to SB-112 and began advancing the soil boring to 20 feet bgs, collecting samples at the 0- to 1-foot and 6- to 8-foot bgs intervals, in addition to collecting a duplicate at the 0- to 1-foot bgs interval. SulTRAC collected a split sample and a duplicate sample at the 0- to 1-foot bgs interval. At 10:35 a.m., CRA began advancing SB-114 to 20 feet bgs (see Photograph No. 6 in Appendix A), collecting samples at the 0- to 1-foot and 8- to 10-foot bgs intervals. SulTRAC did not collect a split sample. At 11:35 a.m., CRA and SulTRAC broke for lunch.

At 12:15 p.m., the drill crew began advancing SB-116 to 20 feet bgs and collected samples from the 0- to 1-foot, 7- to 9-foot, and 9.5- to 10-foot bgs intervals. SulTRAC collected one split sample at the 7- to 9-foot bgs interval. At 1:15 p.m., CRA began advancing SB-117 to 20 feet bgs. The location of SB-117 was offset 4 feet to the east due to utilities. At SB-117, CRA collected samples from the 0- to 1-foot and 8- to 10-foot bgs intervals. Double volume was collected at 0 to 1 foot bgs to use as a MS/MSD sample for laboratory quality control. SulTRAC did not collect any split samples.

At 1:20 p.m., the Excavation Crew began excavating Test Pit 202 to 10 feet bgs. CRA collected two samples (1 to 2 feet and 8 to 10 feet bgs). CRA collected a duplicate at the 1- to 2-foot depth. SulTRAC did not collect a split sample. CRA ended excavation activities at 2:20 p.m., after backfilling Test Pit 202.

At 2:00 p.m., CRA was preparing to collect a surface water sample at location SW-1 (see Photograph No. 7 in Appendix A). CRA (Evan Varnas and Jodi Dembowski) used clean hands/dirty hands technique to collect the low-level mercury sample. At 2:45 p.m., CRA began preparing to collect a surface water sample at location SW-2. At 2:35 p.m., the Drill Crew mobilized to SB-115. After several attempts to advance the soil boring, CRA successfully completed the soil boring to 20 feet bgs on the third try and collected samples from 0 to 1 foot, 3 to 5 feet, and 9 to 10 feet bgs. SulTRAC collected one split sample from the 3- to 5-foot bgs interval. At 3:45 p.m., CRA mobilized to SB-119 and advanced a soil boring to 20 feet bgs. CRA collected samples at SB-119 at the 0- to 1-foot and the 8- to 10-foot bgs intervals. SulTRAC collected one split sample at the 8- to 10-foot bgs interval. At 4:45 p.m., CRA completed soil sampling for the day. At 4:55 p.m., SulTRAC left the site to deliver the samples for metals and cyanide analyses to TriMatrix in Grand Rapids and also ship CLP samples by FedEx.

### **Wednesday, January 20, 2010**

At 8:00 a.m., SulTRAC representatives, Robert Kondreck and Brian Malone arrived on site. Tracey Koach was on site frequently throughout the day but mostly prepared samples for shipment off site. The weather was sunny and 22 °F. CRA personnel on site included one drill crew (Geoprobe) and an excavator, three field technicians (David Rivers, Corrie Bondy, and Evan Varnas), and the field project coordinator (Jodi Dembowski). The field project coordinator was on site infrequently throughout the day. CRA collected soil samples from test pits and soil borings for analysis for VOCs, SVOCs, PCBs, metals, SPLP metals, and general chemistry, in addition to cyanide for selected soil borings. SulTRAC collected split soil samples from soil borings and test pits for analysis for VOCs, SVOCs, PCBs, metals, and cyanide. Details involving sample identification and sample times are provided in Appendix C.

In addition, CRA had one technician purging groundwater from the monitoring wells. During groundwater purging, water quality measurements were recorded every well volume until they had stabilized or 5 well volumes had been removed. At 8:30 a.m., the excavation crew began excavating Test Pit 203 to 10 feet bgs (see Photograph No. 8 in Appendix A). CRA collected three samples at 0.5- to 1.5-feet, 2- to 4-feet, and 8- to 10-feet bgs. SulTRAC collected one split sample at the 0.5- to 1.5-foot bgs interval. After backfilling Test Pit 203, CRA decontaminated the excavator before moving to Test Pit-301 in Area 3 (see Photograph No. 9 in Appendix A).

At 9:00 a.m., the CRA drill crew began advancing SB-114 to 20 feet bgs, and collected two samples from the 0- to 1-foot and 7- to 9-foot bgs intervals. CRA also collected a duplicate sample from the 7- to 9-foot bgs interval. SulTRAC did not collect a split sample at SB-114. At 10:20 a.m., CRA mobilized to SB-145. CRA advanced SB-145 to 20 feet bgs and collected two samples from the 0- to 1-foot and 7.5- to 9.5-foot



bgs intervals. SulTRAC collected a split sample at the 0- to 1-foot bgs interval. At 11:30 a.m., CRA began advancing SB-143 to 20 feet bgs. CRA collected two samples at the 0- to 1-foot and 8- to 10-foot bgs intervals. SulTRAC did not collect a split sample. At 12:10 p.m., CRA and SulTRAC broke for lunch.

At 11:30 a.m., CRA began excavating Test Pit 301 to 10 feet bgs, and collected three samples from the 0- to 1-foot, 6- to 8-foot, and 8- to 10-foot bgs intervals. SulTRAC collected one split sample at the 6- to 8- foot bgs interval. At 12:40 p.m., CRA and SulTRAC broke for lunch.

At 1:15 p.m., the CRA Drill Crew began advancing SB-142 to 20 feet bgs. CRA collected two samples from the 0- to 1-foot and the 8.5- to 10.5-foot bgs intervals. SulTRAC collected a split sample from the 8.5- to 10.5-foot bgs interval. At 2:00 p.m., CRA mobilized to SB-102. The marker for the boring had been removed, so CRA conducted a field measurement off of SB-114 to determine the location. CRA advanced SB-102 to 20 feet bgs and collected two samples at the 0- to 1-foot and 8- to 10-foot bgs intervals. SulTRAC did not collect a split-sample.

At 1:40 p.m., CRA began excavating Test Pit 302 to 11 feet bgs. CRA collected three samples, one each from the 0.5- to 1.5-foot, 4- to 6-foot, and 10- to 11-foot bgs intervals. SulTRAC collected a split sample at the 4- to 6-foot interval. At 3:10 p.m., CRA began excavating Test Pit 306. The excavation was only to 7 feet bgs due to sidewall collapse. CRA collected two samples at the 0.5- to 1.5-foot and 6- to 7-foot intervals, in addition to collecting a sample from the 6- to 7-foot bgs interval to use as a duplicate. At 4:05 p.m., CRA finished backfilling Test Pit 306 and ended excavation activities for the day.

At 3:15 p.m., the CRA Drill Crew advanced soil boring SB-118 to 20 feet bgs (see Photograph No. 10 in Appendix A). CRA collected two samples, one each at the 0- to 1-foot and 7.5- to 9.5-foot bgs intervals. In addition to the usual analyses, CRA selected SB-118 for analysis for cyanide. SulTRAC did not collect a split sample. At 4:00 p.m., CRA mobilized to SB-103. CRA advanced SB-103 to 20 feet bgs and collected two samples from the 0- to 1-foot and 7- to 9-foot bgs intervals. SulTRAC collected a split sample at the 7- to 9-foot bgs interval. SulTRAC left the site at 5:15 p.m.

**Thursday, January 21, 2010**

At 8:00 a.m., SulTRAC representatives, Robert Kondreck and Brian Malone arrived on site. Tracey Koach was on site frequently throughout the day but mostly prepared samples for shipment off site. The weather was sunny and 24 °F. CRA personnel on site included one drill crew (Geoprobe) and an excavator, three field technicians (David Rivers, Corrie Bondy, and Evan Varnas), and the field project coordinator (Jodi Dembowski). The field project coordinator was on site infrequently throughout the day. CRA collected soil samples from test pits and soil borings for analysis for VOCs, SVOCs, PCBs, metals, SPLP metals, and general chemistry, in addition to cyanide for selected soil borings. SulTRAC collected split soil samples from soil borings and test pits for analysis for VOCs, SVOCs, PCBs, metals, and cyanide. Details involving sample identification and sample times are provided in Appendix C

In addition, CRA had a technician purging groundwater from the monitoring wells. During groundwater purging, water quality measurements were recorded every well volume until they had stabilized or 5 well volumes had been removed. CRA finished well development on January 21, 2010.

At 8:10 a.m., the CRA Drilling Crew began advancing SB-120 to 20 feet bgs. CRA collected two samples, one each from the 0- to 1-foot and 7.75- to 9.75-foot bgs intervals, in addition to collecting a duplicate sample at the 7.75- to 9.75-foot bgs interval. SulTRAC collected a split sample from the 7.75- to 9.75-foot bgs interval. At 9:30 a.m., CRA began advancing SB-104 to 20 feet bgs. CRA collected four samples, one each from the 0- to 1-foot, 3- to 5-foot, 5- to 7-foot, and 8- to 10-foot bgs intervals. An MS/MSD sample was collected by CRA at the 3- to 5-foot bgs interval. SulTRAC collected a split sample at the 0- to 1-foot bgs interval. At 10:45 p.m., CRA began advancing SB-122 to 20 feet bgs. CRA collected two samples, one each from the 0- to 1-foot and 8- to 10-foot intervals. SulTRAC collected a split sample from the 8- to 10-foot bgs interval. At 11:45 a.m., CRA and SulTRAC broke for lunch.

At 8:30 a.m., the CRA Excavation Crew began setting up at Test Pit 303 in Area 3. CRA excavated Test Pit 303 to 8 feet bgs and collected two samples from the 0- to 1-foot and 6- to 8- foot bgs intervals (see Photograph No. 11 in Appendix A). SulTRAC collected one split sample from the 6- to 8-foot bgs interval. At 10:15 a.m., CRA excavated Test Pit 307 to 10 feet bgs. CRA collected three samples, one each from the 0.5- to 1.5-foot, 2- to 3-foot, and 8- to 10-foot bgs intervals, plus a duplicate sample from the 0.5- to 1.5-foot bgs interval. SulTRAC collected a split sample from the 2- to 3-foot bgs interval and a duplicate sample from the same interval. Following completion of Test Pit 307, CRA and SulTRAC broke for lunch.

At 12:25 p.m., the CRA Drilling Crew began advancing SB-124 to 20 feet bgs. CRA collected two samples, one each from the 0- to 1-foot and 8- to 10-foot bgs intervals. SulTRAC collected a split sample from the 8- to 10-foot bgs interval. At 1:50 p.m., CRA began advancing SB-126 to 20 feet bgs. CRA collected two samples, one each from the 0- to 1-foot and 7.5- to 9.5-foot bgs intervals. SulTRAC collected a split sample from the 7.5- to 9.5-foot bgs interval. At 2:50 p.m., CRA began advancing SB-105 to 20 feet bgs (see Photograph No. 12 in Appendix A). CRA collected four samples, one each from the 0- to 1-foot, 1- to 3-foot, 3- to 5-foot, and 8- to 10-foot intervals. SulTRAC did not collect a split sample. At 3:40 p.m., CRA began advancing SB-128 to 20 feet bgs. CRA collected three samples, one each from the 0- to 1-foot, 3- to 5-foot, and 11.5- to 13.5-foot bgs intervals. CRA also collected a duplicate sample from the 3- to 5-foot bgs interval. SulTRAC did not collect a split sample.

At 1:10 p.m., the CRA Excavation Crew began excavating Test Pit 305 to 8 feet bgs. CRA collected three samples, one each from the 0.5- to 1.5-foot, 2- to 4-foot, and 6- to 8-foot bgs intervals. SulTRAC collected a split-and duplicate samples from the 0.5- to 1.5-foot bgs interval. At 2:50 p.m., CRA began excavating Test Pit 304 to 7 feet bgs. CRA collected three samples, one each from the 0.5- to 1.5-foot, 2- to 4-foot, and 5- to 7-foot bgs intervals. SulTRAC did not collect split samples from Test Pit 304. At 5:10 p.m., SulTRAC left the site after finishing sample processing for hand delivery of samples to TriMatrix in Grand Rapids, Michigan, and shipment of CLP samples by FedEx to EPA's CLP laboratory.

## **ISSUES AND DEVELOPMENTS**

According to Section 5.1.3 of CRA's work plan, VAS samples were to be collected using a bailer. In addition, well purging was not required prior to sampling. During VAS sampling, CRA used a peristaltic pump to remove water from the temporary well. After water quality measurements had stabilized (except for turbidity), the temporary well interval was sampled using the peristaltic pump. This change in purging and sampling should not have an effect on the sample quality.

CRA offset some soil borings due to the presence of underground utilities. The soil borings were offset no more than 5 feet in the direction deemed least hazardous away from the utilities. This minor change in some sample boring locations should have no effect on the sample quality.

CRA continued to collect fewer samples than originally anticipated due to a higher water table being encountered at the site during drilling and sampling activities. In addition, the change in soil boring sampling procedures (made to accommodate a more efficient process to collect VOC samples) as noted in this section of the Week 1 report also continued during Week 2.

## **FUTURE ACTIVITIES**

As requested by EPA, SulTRAC will continue performing oversight and split sampling activities until the Phase II RI is complete. SulTRAC will submit weekly summary reports to EPA for the duration of the Phase II RI field activities.



**APPENDIX A**  
**SULTRAC PHOTOGRAPHIC LOG**  
(Seven Pages)



Photograph No. 1

Orientation: Southeast

Description: Slid-out well screen used for vertical aquifer sampling (VAS).

Location: Plainwell Mill Site

Date: January 18, 2010



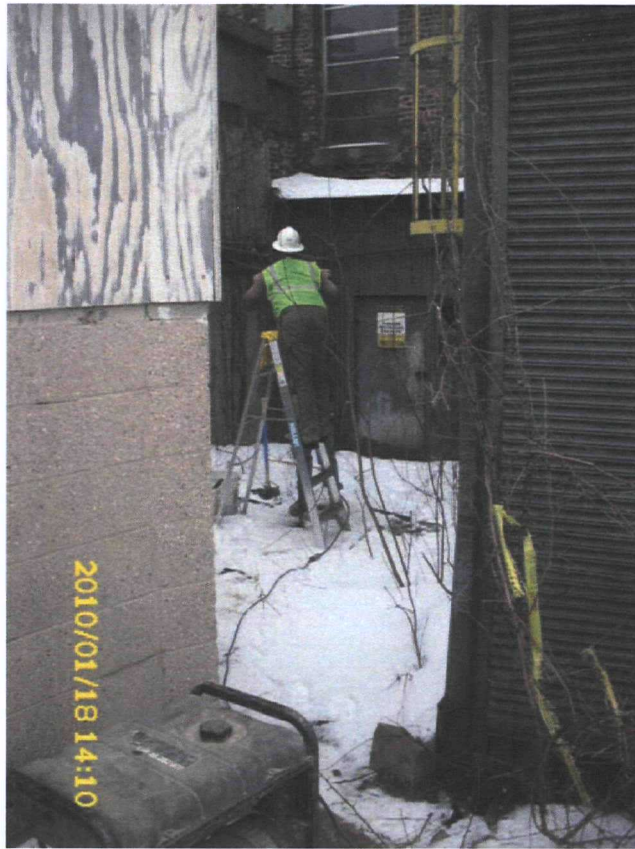
Photograph No. 2

Orientation: Northwest

Description: Conestoga-Rovers & Associates, Inc. (CRA) surging and purging MW-5 using a high-volume pump.

Location: Plainwell Mill Site

Date: January 18, 2010



Photograph No. 3

Orientation: Northeast

Description: CRA advancing soil boring SB-308 using a jackhammer with a sampling barrel attachment.

Location: Plainwell Mill Site

Date: January 18, 2010





Photograph No. 4

Orientation: East

Description: Soil removal by CRA at SB-114 in order to gain better access.

Location: Plainwell Mill Site

Date: January 19, 2010



Photograph No. 5

Orientation: North

Description: Path cleared to soil borings in Area 1 using a skid-steer.

Location: Plainwell Mill Site

Date: January 19, 2010





Photograph No. 6  
Orientation: Northwest  
Description: Advancing SB-114.

Location: Plainwell Mill Site  
Date: January 19, 2010



Photograph No. 7  
Orientation: Southeast  
Description: Collecting surface water samples at SW-1.

Location: Plainwell Mill Site  
Date: January 19, 2010



Photograph No. 8  
 Orientation: Northwest  
 Description: Excavating Test Pit 203.

Location: Plainwell Mill Site  
 Date: January 20, 2010



Photograph No. 9  
 Orientation: West  
 Description: Decontaminating the excavator bucket.

Location: Plainwell Mill Site  
 Date: January 20, 2010





Photograph No. 10  
 Orientation: Northeast  
 Description: Advancing SB-118.

Location: Plainwell Mill Site  
 Date: January 20, 2010



Photograph No. 11  
 Orientation: South  
 Description: Collecting a sample for volatile organic compounds (VOC) analysis from the excavator bucket at Test Pit 303

Location: Plainwell Mill Site  
 Date: January 21, 2010



Photograph No. 12  
Orientation: Northeast  
Description: Advancing SB-105.

Location: Plainwell Mill Site  
Date: January 21, 2010



**APPENDIX B**

**SULTRAC OVERSIGHT FIELD NOTES**

(23 Sheets)

Plainville Mill

1-14-10

- 1232 Photo (SE) From left to right MW-19,  
SB-304, SB-303 location
- 1315 START SB-307
- 0-5 Crushed Coal → DK Bw F Sand Tc M-Gravel
- 5-10 ΔA → Lt Bw F Sand → S+G
- 10-20 S+G @ 17' Black Shale only on S+G
- 1352 Photo (W) of SB-307 location
- 1400 SO-56394-CB-011410-047 (0-1) (20)
- 1405 " " " 048 (6-8) (5)
- 1410 " " " 049 (6-8) Dup
- 1415 " " " 050 (8-10) (2)
- 1430 Begin installing MW-19, setting well  
from (8-15) 35-gallons
- 1456 Installing MW-19 Photo (S)
- 1535 ~~Install~~ Begin installing MW-13  
(9-16) 15-gallons
- 1614 Photo (SE) Installed MW-19

1-14-10

*[Signature]*

Plainville Mill

1-18-10

- 0800 SUTRAC (~~Marion~~ Kozdreck & Kunt)  
arrive onsite. Site Safety meeting  
by CRA. CRA Z crews of Drillers  
& Z geologist. CRA PC (Jed)  
on site. Locator service onsite
- 0830 Begin setting VAP-2
- 0953 Well Screen Photo (Overview)
- 0954 Photo (Overview) closeup of screen
- 0955 Sample VAP-2 (26-30) VA-2  
VAS-56394-DQ-011810-1018
- 1010 Finished (26-30) sampling Begin advancing  
screen to 30-32
- 1050 CRA purging MW-4 & MW-3 then MW-4  
~10 gallons or clear turbs drawn out
- 1129 CRA purging MW-5 Photo (NW)
- 1135 CRA sampling VAS-2 (30-32)  
VAS-56394-DV-011810-1019
- Backlog SUTRAC sampled VAS-2 (26-30) @ 0955  
SVAS-56394-DQ-011810-1018
- Backlog 1050 Using high volume pump to remove  
existing well water
- 1200 Finish sampling VAS-2 (30-32)
- Backlog SUTRAC (Marion) onsite @ 1000
- 1220 Lunch

1-18-10

*[Signature]*

Plainwell Mill

1-18-2010

- 1250 S. ITRAC onsite ———— *KL*  
 1330 CRA prepared to drill SB-308 ———— *KL*  
 1341 Photo (NE) of SB-308 ———— *KL*  
 1350 CRA begins hand probe using a jackhammer at SB-308 ———— *KL*  
 1410 Sample SO-56394-DR-011810-1020 (0-2) <sup>①</sup>  
 1410 Photo (NE) Advancing SB-308 w/a jackhammer  
 1415 SO-56394-DR-011810-1021 (3-5) <sup>②</sup>  
 1420 SO-56394-DR-011810-1022 (7 1/2-9 1/2) <sup>③</sup>  
 1630 S. ITRAC leaves site ———— *KL*  
 Backside Weather, overcast, 30s. little to no wind

*KL*  
 1-18-2010  
*KL*

Plainwell Mill

1-19-10

- 0800 S. ITRAC (Malone & Kowdzick) onsite  
 Site Safety meeting Weather 30s no wind, overcast. ———— *KL*  
 0830 CRA using excavator to <sup>access</sup> SB-114 by building a ramp to the location  
 0852 Photo (E) of SB-114 location  
 CRA continues to purge new & existing monitoring wells. New wells were pumped last week. Existing wells 10-gallons were removed then water quality readings were recorded for 3-well volumes  
 0915 CRA using bobcat to create a path in the wooded area ———— *KL*  
 1003 Photo (W) CRA clearing path in wooded area ———— *KL*  
 1040 Finish path making, prepare for test pits  
 1100 CRA laying out visqueen prior to excavation  
 Photo (W) Begin test pit excavation  
 TEST PIT 201 ———— *KL*  
 0-1 Asphalt ———— *KL*  
 1-2 Fill/Gravel ———— *KL*  
 2-10 RODR Bw F.Sand w Cables 1"-1' sum. rounded

1-19-10

*KL*



## PLAINWELL Mill

1-19-10

- 1127 Photo (W) Test Pit 201 \_\_\_\_\_ RK  
 1105 SO-56394-DR-011910-1023 (10-2) ②  
 1130 SO-56394-DR-011910-1024 (8-10) ②  
 1130 S-50-56394-DR-011910-1024 (8-10) ①  
       Sultrac Split Samples  
 1150 Begin backfilling \_\_\_\_\_ RK  
 1153 Backfilling Test Pit 201 \_\_\_\_\_ RK  
 1230 Lunch \_\_\_\_\_ RK  
 1300 End Lunch \_\_\_\_\_ RK  
 1320 Begin excavation on Test Pit 202  
 1329 Photo (S) Test Pit 202 \_\_\_\_\_ RK  
       0-1 1/2" Asphalt fill (1/2") Crushed Asphalt \_\_\_\_\_ RK  
       1 1/2" 2" DR Bw F Sand \_\_\_\_\_ RK  
       2-7" RD Bw F Sand w/ Cobble 1"-1" sum. rock  
       7-10" Coarse S/G \_\_\_\_\_ RK  
 1348 Photo (E) Test Pit 202 \_\_\_\_\_ RK  
 1330 SO-56394-DR-011910-1025 (1-2') ②  
 1335 SO-56394-DR-011910-1026 (1-2') Dup  
 1340 SO-56394-DR-011910-1027 (8-10) ②  
 1400 CRA preparing to collect surface water  
       sample at location SW-1 \_\_\_\_\_ RK  
 1413 Photo (SE) Sampling at SW-1 \_\_\_\_\_ RK  
 1420 Photo (NW) " " \_\_\_\_\_ RK  
       Stream moving fairly quickly, 34°

1-19-10

RK

## PLAINWELL Mill

1-19-10

- 1420 Filling back in the excavation Test Pit 202  
 1445 CRA setting up at Surface water sampling  
       location SW-2  
 1454 Photo (E) Surface water sampling at SW-2  
       wearing Tyvek for low-level thy tests

1028 SW-1  
 1029 SW-2  
 1030 FRIP Bk



## PLAINWELL MILL

1-20-10

- 0800 SUTRAC (MALONE & KONDRECK) on site  
 Weather 22° Sunny no wind  
 Site Safety Meeting
- 0830 CRA begins Test Pit excavation, soil boring advancement, & well Development
- 0850 CRA excavating Test Pit 203
- 0-4/2 Gravel Fill
- 1/2-1 1/2-2' Crushed Coal
- 2-4' Rd Br F Sand & Cobble (semi-rounded) < 1" - 1/2"
- 4-10' Rd Br F Sand
- 4' x 10' excavation 10' deep
- 0918 Photo (SW) Test Pit 203
- 0845 SO-56394-DR-012010-1031 (1/2-1 1/2') (3)
- 0900 " " " 1032 (2-4') (4)
- 0925 " " " 1033 (8-10') (5)
- SUTRAC Split (1/2-1 1/2') 0845 (2)
- S-50-56394-DR-012010-1031
- 0935 Photo (NW) Test Pit 203
- 1030 CRA decommissioning excavator
- 1057 Photo (W) Cleaning excavator bucket (12)
- 1130 Begin excavation of Test Pit-301
- 1148 Photo (S) Excavating Test Pit 301
- 0-1/2' L Br F Sand
- 1/2-6' L Br F Sand Remnants of housing foundation w/ concrete on 1' rounded cobbles 1-20-10

## PLAINWELL MILL

1-20-10

- 6-8' Pkg gravel w/ F Sand
- 8-10' A.A w/ cobbles
- 1135 SO-56394-DR-012010-1034 (6-11')
- 1210 " " " 1035 (6-8')
- 1210 S-50-56394-DR-012010-1035 (6-2')
- SUTRAC SPLIT SAMPLE (3)
- 1225 SO-56394-DR-012010-1036 (8-10')
- 1240 LUMEN
- 1310 END LUND sand c.m.b.
- 1320 SUTRAC on site
- 1340 Begin Excavating TP-302
- 0-1/2' Asphalt / Crushed Asphalt
- 1/2-4' DK Br F Sand & Clay
- 4-6 1/2' Dump household waste (Bed springs, shoes, cans etc) mixed w F Sand & Clay
- 6 1/2-9' A.A
- 9-10' Rd Br F S & G
- 1345 SO-56394-DR-012010-1037 (1/2-1 1/2')
- 1400 " " " 1038 (4-6')
- 1400 S-50-56394-DR-012010-1038 (4-6')
- SUTRAC SPLIT SAMPLE (4)
- 1425 SO-56394-DR-012010-1039 10-11'
- 1450 Filling in Excavation TP-302
- 1040 Trip Back
- 1-20-10



1-20-10

1605 Filing in TP-306

↓  
Well Posing & Surgically Chronology <sup>cells</sup> <sub>low at 28 or more</sub> at least 12 ~~10~~ <sup>12</sup> ~~10~~ <sup>12</sup>

Backhoes 1-13-10 Background well measurements  
1-15-10 Surveying Drilling Volume for  
1-18-10 AA  
1-19-10 Began low-level background Chem  
Temp, Cond, pH, Turb, Calc well volume  
Measurements at each well volume

1-20-40

## Random Pin

1-21-10

S-TRAC SPLIT SAMPLE MS/MSD ⑤  
OBSS S-50-56394-DR. 012110-1045 (L-81)

0155 Photo (SE) Test Pit 303

1015 Begin excavating Test Pit 307

1045 Photo (S) Sampling Test Pit 307 (8-10) <sup>sampled</sup> <sup>→</sup> Soil

0-3 Fill material, Brick Debris, Brushed Asphalt (~2')

3-8 L. Bas F. Sand w/ Cobble 1"-1" increasing quantity with depth

8-10 S & G

1020	SO-56394-DR-012110 -	1046	(1/2-1 1/2)	(21)
1025	"	" -	1047	(1/2-1 1/2) D <sub>41</sub>
1045	"	" -	1048	(8-10) (22)
1120	"	" -	1049	2-3 (23)
1120	S-SO-56394-DR-012110 - 1049			(2-3) (24)
1125	SD-SO-56394-DR-012110 - 1049			(2-3) D <sub>9</sub>

SWITRAC Split  
1-21-19

Plainsville Min 1-21-10

1200 S. Trac lunch \_\_\_\_\_ 2

1230 S. Trac Returns from lunch \_\_\_\_\_ 2

Backnote CRA collecting water quality reading from  
all MWs \_\_\_\_\_ 1

1310 Excavating TP-305 \_\_\_\_\_ 2

0-2 Asphalt, Gravel (1/4") Crush Asphalt / Slag, Black  
Crush Asphalt / Slag \_\_\_\_\_ 2

2-6 F. Sand w/ Cobles 1"-1" Semi-round \_\_\_\_\_ 2

6-8 S&G \_\_\_\_\_ 2

1413 Photo (S) of Test Pt-305 \_\_\_\_\_ 2

1340 SO-56394-DR-012110- 1050 (1/2-1/2) (25)

1340 S-50-56394-DR-012110 1050 (1/2-1/2) (7)  
S. Trac Split Sample

1350 SO-56394-DR-012110- 1051 MS/MSD (2-4) (25)

1405 " " - 1052 6-8 (25)

1450 Begin Excavating Test Pt-304 \_\_\_\_\_ 2

0-1 Crushed Asphalt, Slag \_\_\_\_\_ 2

1-5 1/2 F. Sand w/ increasing Cobles 1"-1" increasing  
towards bottom \_\_\_\_\_ 2

5 1/2-7 S&G \_\_\_\_\_ 2

1524 Photo (S) Test Pt 304 \_\_\_\_\_ 2

1455 SO-56394-DR-012110- 1053 (1/2-1/2) (27)

1505 " " - 1054 (2-4) (25)

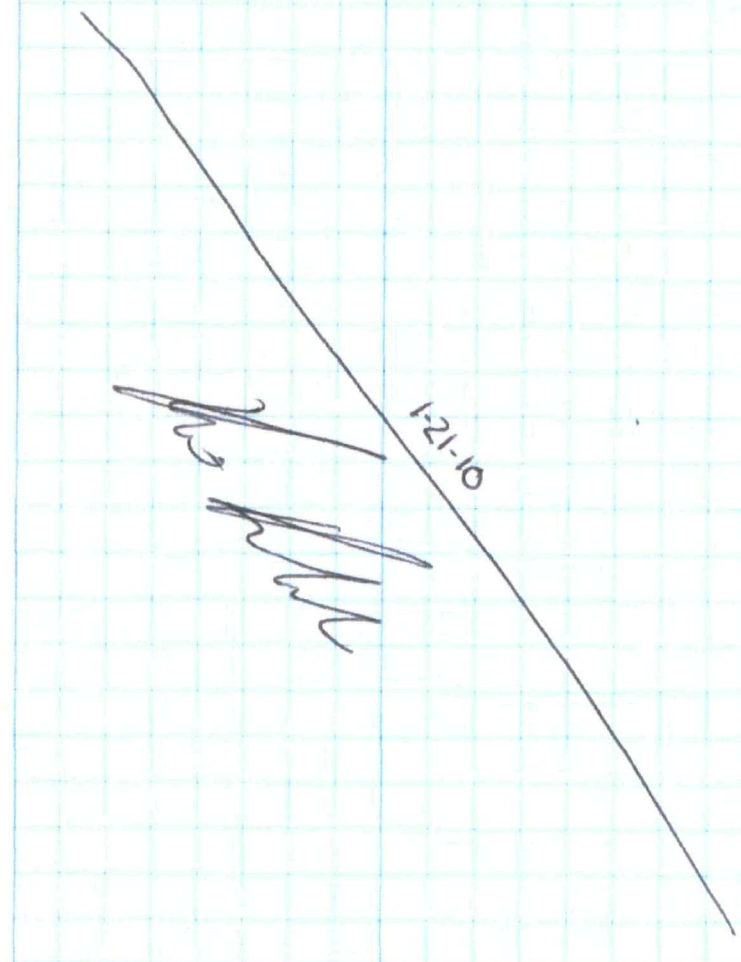
1515 " " - 1055 (5-7) (25)

1-21-10

Plainsville Min 1-21-10

1530 Begin filling in excavation Test Pt-304

1700 Packed samples leave site \_\_\_\_\_ 2





4

Allied Plainwell

01-13-2010

Weather: Clear, cold (22°F)

1100 Oversee CRA (Evan Varnes)  
collect surface soil sample  
at location SS101 in Area 1.  
SulTRAC will collect a split soil  
sample at this location. CRA  
will be collecting their lab  
QC samples at this location.

1135 Collect soil samples after CRA  
compacted soil from 0-2'  
at SS101. Soil is brown medium sand

1145 Take samples to Kisti Root location

1215 Leave site to process samples.

*End of Oversight Activities for  
Tuday Roach 01-13-10*

5

Allied - Plainwell

01-18-10

Weather: Overcast, cold (31°F)

0800 SulTRAC (T. Koach, R. Kondrick)  
arrive on site and prepare for  
day. CRA staff already on  
site.

0830 Tailgate health and safety  
meeting is conducted. Corey  
Bandy informed us that  
she will be drilling in  
Area 1. I will oversee  
her crew and Rob Kondrick  
will oversee the other  
crew that must finish  
the VAS. RK

0930 Begin drilling at SB140 in  
Area 1. Medium coarse sand,  
brown 0-6" brown silty fine  
sand 6-18" with few gravel;  
2" black silty sand, reddish  
brown silty fine sand 20-32"  
(3-4' bgs), dark reddish  
brown silty fine sand 4-10",  
black silty fine sand with  
few pebbles 10-20"

6 Allied - Plainwell 1-18-10  
CRA Collects a bag of material from each 5' interval to field scan with a PID.

1000 Corrie Bandy (CRA) collects soil sample from 0-1' bgs

1005 CRA collects soil sample from 8-10'

1010 CRA collects a duplicate soil sample from 8-10'

1015 Brian Malone replaces me on soil boring and split sampling oversight.

1043 Soil boring SB-121 offset to the northeast due to utilities and tree roots in the area of the proposed location. New location still within the indicated footprint of the lagoon.

1045 CRA advancing SB-108. Current interval 10-15' bgs. SUTRAC will collect split sample from this location — BM

1100 CRA indicated no sludge evidenced in SB-110 or SB-108. SUTRAC did not observe sludge in SB-108. — BM

1115 PID readings = 14-16 = .7 ppm. Rest of intervals = 0.0. — BM

7 Allied - Plainwell 1-18-10  
1118 Sutra call split sample  
S-SS-56394-CB-011810-057,  
interval 6.5-8.5. — BM

1125 CRA and SUTRAC collect  
collect S-SS-56394-CB-011810-057.

1135 CRA breaks for lunch — BM

1215 CRA back onsite to resume soil borings. — BM

1225 CRA begins SB-107. — BM

0-6" Medium brown coarse sand,  
non-cohesive, non-plastic. — BM

6"-1'- Light brown coarse sand, nc, up  
1.5-4.5' - Medium grey sand coarse sand, to  
silty sand at 3.5-4.5'. Cohesive

4.5-5' Light grey paper residual, paste-  
like. — BM

5-7' Light grey paper residual with  
light grey coarse sand layers. — BM

7' Light grey rock lens, limstic.

7'-10' - Black coarse sand. Non-cohesive,  
non plastic — BM

10'-15' Thick fine grained sand, damp to wet  
at 15' nc, up. — BM

15-20' Black " " SAB. Little more  
5'. — BM



# 8 Allied - Plaimnell

1-18-10

Backnote: Sp-108 CRA collected sample from 0-1, 6.5-8.5, & 8.5-10.0

1250 CRA collects soil samples 0590-1 0604-5.6 0616.5-8.5 ~~0622-8.5~~ on

1300 PID Readings: 6-8' = .9 ppm, 0-2 = .3, 2-4 = .5, 4-6 = .8, 8-10 = .8, 10-12 = .6, 12-14 = .6, 14-16 = 0.6, 15-20 = .5 - on

1305 CRA moves rig to SB-101 - on

1315 CRA begins advancing SB-101 - on  
0-6" Dark medium reddish brown fine sand, damp, non-cohesive, non-plastic - on

6"-5" SAB - on

5'-7.5' SAB, large rock at 7.5' - on

7.5-10.0 - Light/medium brown coarse sand, non-cohesive, np - on

10-15' Black, coarse grained sand, non-cohesive, np. - on

15-20 SAB, wet - on

1340 CRA to sample 0-1/63, 6.8-8.8/63, 8.8-9.5/64

PID: 0-2 = .7, 2-4 = .5, 4-6 = 0.6, 6-8 = 0.6, 8-10 = 0.6, 10-12 = 0.7, 12-14 = 0.6, 14-16 = 0.7, 16-18 = 0.7, 18-20 = 0.3

1345 SUTRAC collect split sample

S-55-56394-CB-011810-062.

# Allied - Plaimnell

1-18-10

CRA to collect MS/MSA at 062. HOO CRA moves to location SB-106.

Inform SUTRAC they will be analyzing for cyanide at this location. - on

1425 CRA begins advancing SB-106. - on

1445 0-6" (6mm and woody material, light brown medium to coarse brown sand. damp, nc, np

6-12" Grey, coarse sand, nc, np, damp

12-5' Medium brown coarse to fine grained sand, damp, nc, np - on

5'-10' SAB - on

10-15' Black, coarse grained sand, damp, nc, np. Gravel at 15' - on

15-20 Black, coarse grained sand w/ small gravel. nc, np, wet. - on

PID Results: - on

0-2 = 0.5, 2-4 = 0.4, 4-6 = 0.4, 6-8 = 0.4, 8-10 = 0.5, 10-12 = 0.6, 12-14 = 0.4, 14-16 = 0.5, 16-18 = 0.6, 18-20 = 0.7

Samples: S-50-56394-CB-01180-67

68 1510 3.5-5.5

69 1515 8-10

70 1520 8-10  
NUP

# Allied Plannell

1-18-10

1545 CRA relocation to SB-111.

1547 Pexin drilling SB-111 — Bm

0-2" topsoil — Bm

2-6" Light brown coarse sand w/ small gravel. nc, np, damp — Bm

6-12" Dark brown fine grained sand & loc, nc, np, damp — Bm

12-18" Medium grey & grey coarse grained sand with small angular gravel. nc, np

4' - Large chunk of concrete — Bm

5-10' Coarse grained sand, nc, np — Bm

5-6' medium to dark grey — Bm

6-7' light grey, light residue — Bm

7-8' Light brown to orange brick debris

8-10' Dark grey, light grey rock @ 10'

10-15' Black coarse grained sand, nc, np, damp. Gravel 14-15' — Bm

15-20' Small gravel @ 8", black, wet @ 15' — Bm

1605 Pib Readings: 0-2 = 0.4, 2-4 = 0.4,

4-6 = 0.4, 6-8 = 0.6, 8-10 = 0.6, 10-12 = 0.7

12-14 = 0.7, 14-16 = 0.6, 16-18 = 0.5, 18-20 = 0.6

Samples: 0-1/071, 7-9'/072, — Bm

5-50-56394-CB-011810-071, — Bm

## Photolog

1-18-10

#			
44/476	SB-111	location	J
45/477	SB-101	location	NE
46/478	"	"	NE
47/479	SB-106	location	
48/480	SB-106	cores	
49/481	SB-106	cores	
50/482	SB-113	location	1/19 East
51/483	"	cores	Dawn
52/484	SB-112	location	East
53/485	SB-112	cores	Dawn
54/486	SB-114	location	E
55/487	SB-114	cores	E
56/488	SB-116	location	NE
0-4" Medium brown topsoil & vegetation			
6"-2.0- Medium brown coarse sand, damp, <u>nc, np</u>			
2.0-5.0 Medium brown coarse sand with rock layers at 2.5, 3.0, 4.5. <u>nc, np</u>			
5-7' - Medium grey, coarse grey sand, damp, <u>nc, np</u> .			
7-8' - Med. brown coarse sand, damp, <u>nc, np</u> .			
8-9' light brown to orangish brown fine grained sand, damp, <u>nc, np</u> — <u>Bm</u>			



12 Allied - Plainwell 1/18/10  
 072 073 BM  
 105 SUTAC collect sample from 7' 4"  
 072. BM  
 1645 SUTAC depart site. — BM

*BNH*  
 1-18-10

13 Plainwell - Allied Tuesday 1-19-10  
 0750 SUTAC onsite. — BM  
 0827 CRA begins advancing SB-113.  
 SB-113 BM  
 0-6: 0-2 - topsoil & woody material  
 2-6" - Med. brown coarse grained  
 sand, damp, nc, np. — BM  
 6'-5 1/2' - Med. brown coarse grained sand,  
 damp, nc, np. Light gray layer at 4'.  
 5'-9' Medium brown coarse grained  
 sand, damp, nc, np. — BM  
 9' - Dark gray clayey layer, calcine  
 10-15' Black coarse grained sand, damp, nc.  
 np. — BM  
 15-20' SAG wet. — BM  
 0907 Re-trip down to 5-10' has  
 evidence of clay & paper residue  
 from 8-10'. — BM  
 PA: 0-2 = .8 2-4 = .9 4-6 = .7 6-8 = .5,  
 8-10 = .9, 10-12 = 1.0, 12-14 = .9, 14-16 =  
 0.4, 16-18 = 0.8, 18-20 = 0.5 — BM  
 SAMPLES: 0-1 = 073 @ 0905  
 8-10 = 074 @ 0910  
 0927 CRA begins advancing SB-112  
 0-4" - Topsoil, woody material  
 4"-3.5" - Medium brown coarse grained



## Plainville - Allard

1-17-10

seal, damp, nc, np. ——— BM  
 3.5-5' - Light to medium gray coarse  
 grained sand w/ silt and paper residual.  
 5-9' - Light gray paper residual, damp  
 9-15' - Black coarse grained sand, damp  
 nc, np ——— BM

PID: 0-2 = 0.5, 2-4 = 0.5, 4-6 = 3.2, 6-8 = 10.1,  
 8-10 = 2.3, 10-12 = 0.7, 12-14 = 0.5, 14-16 =

Samples: ~~070-0-1 DUP~~ 075-0-1

077-6-8

076-0-1 DUP (CRA)

SULTRAC 077 6-8 0950

077 DUP 6-8 ↓

1040 CRA complete boring SB-112

1035 CRA begins advancing SB-114

1050 SB-114 ——— BM

0-5' Medium brown coarse grained sand  
 with locust, nc, np, damp ——— BM

5-7' SAB, with concrete chunks ——— BM

7-7.5' Black coarse grained sand, nc, np, damp

7.5-10' white-light gray paper residuals, damp  
 cohesive, strong odor10-12' Medium brown coarse grained sand, nc,  
 np, damp ——— BM

12-15' Black coarse grained sand, nc, np

## Plainville - Allard

1-19-10

15-20 SAB, wet.

PID Readings

0-2 = .5

10-12 = .9

2-4 = .1

12-14 = .8

4-6 = .6

14-16 = .9

6-8 = 2.3

16-18 = 1.0

8-10 = 3.7

18-20 = 1.4

CRA SAMPLES: 078 0-1 1110

079 8-10 1115

1135 CRA break for lunch. ——— BM

1120 CRA moves to SB-116

SB-116 ——— BM

0-4" Med. brown topsoil &amp; vegetation

4"-2.0' - Med. brown coarse sand,

damp, nc, np ——— BM

2-5' - Med. brown coarse sand w/  
 rock layers at 2.5, 3.0 & 4.5', nc, np5-7' - Medium gray coarse grained sand  
 damp, nc, np. ——— BM7-8' - Med. brown coarse sand,  
 damp, nc, np. ——— BM8-9' Light brown to orangish brown  
 fine grained sand, damp, nc, np9-10' Med. orangish brown coarse sand,  
 damp, nc, np. ——— BM

## Plainville - Allied

1-19-10

10-15 Black coarse grained sand, nc, np  
 15-20 Black coarse grained sand & gravel, nc, np

PID Readings

0-2 = 0.6

2-4 = 1.2

4-6 = 1.2

6-8 = 0.8

8-10 = 0.8

10-12 = 0.5

12-14 = 0.5

14-16 = 0.7

16-18 = 0.8

18-20 = 0.6

CRA Samples

1250 OBO 0-1'

1255 OBI 7-9'

1300 OBA 9.5-10'

SulTRAC sample

1250 S-50-56394-CB-011910-OBI

1315 CRA advancing SB-117

0-1" Topsoil, vegetation

1"-4.5' Medium brown coarse sand, damp

nc, np

4.5-5.0- Dark grey to black coarse sand  
with clay, coarser, np5.0-7.0- Med. brown coarse sand with  
small gravel, damp, nc, np7.0-9.0- Medium grey coarse sand with  
gravel to 1/2". Damp, nc, np

9-10'. Medium brown coarse gravel

## Plainville - Allied

1-19-10

sand with little clay and gravel, damp  
 nc, np.

10-15 Black coarse grained sand, damp, nc, np

15-20 S&amp;B w pea size gravel.

PID Readings

0-2 = 0.2

2-4 = 0.7

4-6 = 0.3

6-8 = 0.7

8-10 = 0.8

10-12 = 0.1

12-14 = 0.1

14-16 = 0.1

16-18 = 0.2

18-20 = 0.2

CRA Samples:

0-1 OBI

8-10 OBI

SB-117

ms/msb 1410

1415

1415 Location of SB-117 was off  
 set 4' east due to underground  
 utilities.

1435 CRA move to location SB-117.

1450 CRA encountering refusal between  
 3-5'. Third attempt will offset north.

PID Readings

0-2 0.5

2-4 0.2

4-6 0.8

6-8 0.8

8-10 1.5

10-12 0.3

12-14 0.4

14-16 0.9

16-18

18-20



## Plannell-Allied

1-19-10

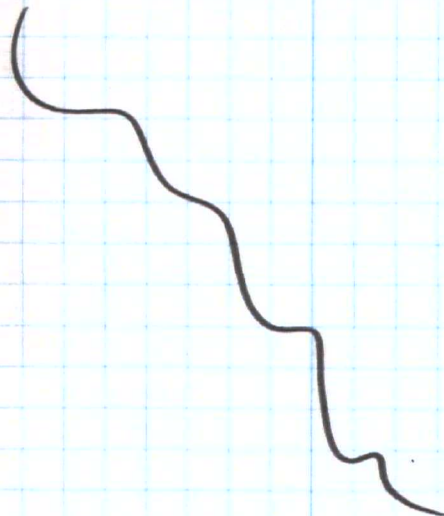
## CRA SAMPLES:

085 0-1 087 2-4 dm 1520, 1530  
 086 3-5 088 9-10 1525, 1535  
 SUTRAL sample:                      Au  
 1520 S-30-56394-CB-011910-086  
 1545 CRA move to location SB-119  
 SB-119                       
 0-4" - Dark brown topsoil & vegetation,  
 damp, nc, np                      Au  
 4"-5" Medium brown coarse sand w/  
 small gravel, noncohes, np, damp  
 5"-7.5" - SAB                      Au  
 7.5"-8.5" Dark grey clay and small  
 gravel, damp, cohesive, np  
 8.5"-10" Med. brown clay with coarse  
 sand and gravel, damp, cohesive, np  
 10"-12" Med. brown coarse sand w/ small  
 gravel, damp, nc, np                      Au  
 12"-15" Medium brown small gravel  
 with coarse sand and gravel.  
 Moist, nc, np.                      Au  
 15"-19" Dark grey small gravel w/  
 coarse sand, moist, nc, np                      Au  
 19"-20" SAB, brown sand                      Au  
                                          Au

## Photology

1-17-10

#	Desc.	Direction
48957	Location SB-117	S
49058	Cores SB-117	Down, E
49159	Offset location SB-117	NE
49260	Location SB-115	NW
49361	Cores SB-115	Down, SW
49462	Location SB-119	NW
49563	Cores SB-119	NW, down



*Drill*



Plainville - Allied

1-19-10

CRA Samples: 089 0-1 1620

090 8-10 1625

SULTRAC

S-50-569M 56394-011910-CB-090

PID SB-119

0-2 0.1 10-12 0.4

2-4 0.5 12-14 1.1

4-6 0.8 14-16 1.4

6-8 0.4 16-18 1.6

8-10 0.8 18-20 1.9

1645 CRA completes soil borings.

1655 Sultrac departs the site.

Ball  
1-19-10

Plainville - Allied

1-20-10

0750 SULTRAC depart hotel for site.  
0759 SULTRAC onsite. CRA prepping  
for days work.0826 SULTRAC & CRA move to boring  
locations.

0900 CRA advancing boring SB-144.

0940 SB-144

0-3' Topsoil, dark brown, damp

3'-4' Fine grained sand with clay and

gravel, medium brown, damp, coarse, np

4-5' Coarse grained sand w/ small gravel,

medium brown, damp, no np

5-10 Medium brown coarse grained sand  
and gravel, damp, no, np10-15 Medium brown gravel with coarse  
grained sand, damp to moist, no, np

15-20 S&amp;B cut wet.

PID Results

0-2 = 0.7 10-12 = 0.4

2-4 = 0.9 12-14 = 0.6

4-6 = 0.5 14-16 = 0.2

6-8 = 0.8 16-18 = 0.4

8-10 = 0.5 18-20 = 0.7

CRA SAMPLES: 090 @ 1000 0-1'

091 @ 1005 7-9

Plainsville - Allied 1-20-10

093 @ 1010 7-9 (OVP)

1020 CNA moved to location SB-145 and begin advancing boring. BM

SB-145

0-4" Dark brown topsoil and fine grained sand, damp, NC, up

4.5' - Orange brown fine grained sand, damp, NC, up

5-7' - SAB

7-10' - SAB with gravel

10-15' - Coarse grained sand and gravel, med. brown, moist, NC, up

15-20' - Poorly sorted gravel with medium brown coarse sand, wet, NC, up

010 counts

0-2 = 0.1 10-12 = 0.8

2-4 = 0.5 12-14 = 0.5

4-6 = 0.5 14-16 = 0.5

6-8 = 0.6 16-18 = 0.6

8-10 = 0.6 18-20 = 0.4

cat samples

094 0-1' 1100

095 7.5-9.5' 1105

Sketch: S-SB-56344-CB-012010-094

Photology

#	Disc.	Direction
49	SB-144 location	E
49	SB-144 cores	Down
66/67	SB-143 location	NE
68	SB-143 cores	Down
69	SB-142 location	S
70	SB-142 cores	Down
71	SB-102 location	W
72	Geoprobe set-up @ SB-102, NW	
73	SB-102 cores	Down
74	SB-118 location	E
75	SB-118 cores	Down
76	SB-103 location	E
77	SB-103 cores	Down



Plainville - Allied 1-20-10  
SULTRAC sample 094 collected at  
1050

1130 CEA begins advancing SB-143  
0-6" Dark brown topsoil, damp, NC, NP  
6"-4.5'- Medium brown to orangish brown  
fine grained sand, damp, NC, NP — BM  
4.5-5.0' - Medium brown coarse grained sand  
and gravel to 2", damp, NC, NP — BM  
5-10' Light brown coarse sand with  
gravel, NC, NP, damp. — BM  
10-15' Medium brown coarse grained sand  
and gravel, moist, NC, NP — BM  
15-20' SAB, wet — BM

PID Results

0-2 = 0.8	10-12 = 0.6
2-4 = 0.8	12-14 = 0.6
4-6 = 0.9	14-16 = 0.6
6-8 = 0.9	16-18 = 0.5
8-10 = 0.7	18-20 = 0.7

CEA SAMPLES: 096 0-1 1200  
097 8-10 1205

1210 CEA breaks for lunch — BM  
1240 CEA begins relocating rig to  
location SB-142. — BM

1315 CEA begins advancing SB-142

Plainville - Allied 1-20-10

SB-142

0-4" Dark brown topsoil, damp, NC, NP  
4"-5' Medium brown coarse sand, damp,  
NC, NP — little recovery less 20%.  
5-10" 9 Light brown coarse sand w/  
gravel, same gravel to 1". Damp, NC, NP  
1-10 Light brown gravel with coarse  
sand, damp, NC, NP  
10-15' Same as above but orangish  
brown — BM

PID RESULTS

0-2 = 0.0	12-14 = 0.1
2-4 = 0.1	14-16 = 0.1
4-6 = 0.0	16-18 = 0.2
6-8 = 0.2	18-20 = 0.3
8-10 = 0.3	
10-12 = 0.2	

CEA SAMPLES: 098 0-1

099 8.5-10.5

SULTRAC samples — BM

S-30-SB39-1-CB-012010-099 1350  
1400 CEA to location SB-102.

Stake was removed so location



Plainwell - Allied 1/20/10  
was field located in reference  
to SB-114. Location identified is  
approximately 30' N/NE of SB-114.  
14/5 SB-103

0-1 Topsoil  
1-5 Fine grained sand, medium brown,  
with trace gravel and paper residues  
~~5-10 fine grained sand, trace clay & silts, nc, np, black~~ tot and on  
5-10 ~~4.5~~ Fine grained sand, medium brown to  
orangish brown, rock at 11', quartz d  
10-12 Fine grained medium brown sand,  
damp, nc, np.  
12-15 Black, coarse grained sand, damp,  
nc, np.  
15-20 SAB, wet.  
PID Results

0-2 = 0.2<sup>nd</sup> 0.0 10-12 = 0.5  
2-4 = 0.4<sup>th</sup> 0.2 12-14 = 0.2  
4-6 = 0.3 14-16 = 0.4  
6-8 = 0.4 16-18 = 0.2  
8-10 = 0.2 18-20 = 0.2

CRA SAMPLES: 100 0-1 1430

tot sm 101 8-10 1435

Plainwell - Allied 1-20-10

1515 SB-118

0-2" Dark brown topsoil  
2"-5' orangish brown fine grained  
sand, damp, nc, np  
5-6' SAB, light orangish brown  
6-10' Medium brown fine grained  
sand w/ trace gravel, damp, nc, np  
10-14.5 - Black coarse sand w/ trace  
gravel, nc, np, moist  
14.5-15 - Medium brown coarse sand,  
wet, nc, np  
15-15.5' Medium brown gravel with  
coarse sand, wet, nc, np  
15.5-20 SAB but black

#### PID RESULTS

0-2 = 0.5 10-12 = 0.3  
2-4 = 0.5 12-14 = 0.1  
4-6 = 0.6 14-16 = 0.2  
6-8 = 0.5 16-18 = 0.1  
8-10 = 0.2 18-20 = 0.1

CRA SAMPLES: 102 0-1 1545

1550/103 8-10 on 7.5-9.5

1600 CRA move to location SB-103

1663 Begin advancing SB-103

0-2" Dark brown topsoil, damp, nc, np



Allied - Plainville

1/20/10

20-51 Medium brown fine grained sand with trace coarse sand. Trace gravel.

Damp, ne, np

5-10 SAB, dark brown from 7-8' - ~~on~~

10-15 Black coarse gravel of coarse sand, damp, ne, np

15-20 SAB but reddish brown color

PID Readings

$$0-2 = 0.4$$

$$10-12 = 2.0$$

$$2-4 = 0.6$$

$$12-14 = 2.2$$

$$4-6 = 1.0$$

$$14-16 = 1.8$$

$$6-8 = 1.6$$

$$16-18 = 2.4$$

$$8-10 = 2.2$$

$$18-20 = 2.9$$

CRA Samples: 104-0-1' - 1640

105-7-9' - 1645

SulTAC Sample: S-X-56394-CB-012010-105

taken at 1630 from 7-9' - ~~on~~

1645 CRA + SulTAC complete soil borings for the day - ~~on~~

1653 SulTAC begin entering data to excel spreadsheet from day activities - ~~on~~

1700 SulTAC depart site, data will be entered at hotel - ~~on~~

BAN

Plainville - Allied

1-21-10

0755 SulTAC onsite. Pick-up jars for sampling. - ~~on~~

0810 SulTAC ~~by~~ ~~on~~ CRA clearing SD-120. - ~~on~~

0-1 Light brown coarse grained sand, damp, ne, np

1-2 Medium brown to black coarse grained sand damp, ne, np

2-5 Light brown coarse grained sand, damp, ne, np - ~~on~~

5-10 SAB - ~~on~~

10-15 ~~SAB~~ - ~~on~~

15-20 Dark grey sand and coarse sand, wet, ne, np. Brown 19-20' ~~on~~

PID Results

$$0-2 = 1.2$$

$$10-12 = 0.8$$

$$2-4 = 0.9$$

$$12-14 = 0.5$$

$$4-6 = 0.6$$

$$14-16 = 0.5$$

$$6-8 = 0.3$$

$$16-18 = 0.6$$

$$8-10 = 0.7$$

$$18-20 = 0.5$$

CRA SAMPLES: 090-0-1' (DWP)

107-7.75-9.75 - 0910, DWP 0915 (100)

SulTAC S-X-56394-CB-012110-

107, 0900



## Plainville - Allied

1-21-10

0930 CEA begin advancing SB-104.

0-2' Medium brown coarse sand and topsoil, damp, nc, np

2-5' Black fine grained sand with trace clay. Brick frag at 4'. Colesite np, damp

5-7' Black coarse grained sand, damp, nc, np.

7-10 Drabish brown fine grained sand, damp, nc, np. 1" cobble at 10' - in

10-15 No recovery

15-20 Medium brown coarse sand and gravel, wet, nc, np  
PID results

0-2 = 0.3

10-12 = 0.5

2-4 = 0.4

12-14 = 0.7

4-6 = 0.4

14-16 = 0.9

6-8 = 0.3

16-18 = 0.6

8-10 = 0.4

18-20 = 0.5

CEA samples:

109 = 0-1'

110 = 3-5'

111 = 5-7'

112 = 8-11'

Collecting Cyanide on all @ 0950

ms/msd @ 0955

② 1000

② 1005

SULTAC sample 109 1000

Photology  
Desc

1-21-10

Direction

#	Location	Direction
78	Location SB-120	N
79	" " SB-104	N
80	Geoprobe cores SB-104	N/down
81	Location SB-122	SW
82	Cores SB-122	Down, N
83	Location SB-124	N
84	Cores SB-124	Down
85	Location SB-126	E
86	Cores SB-126	Down
87	Location SB-105	E
88	Cores SB-105	
89	Location SB-128	E
90	Cores SB-128	Down

85 & 86 Photos of leaking VOC containers. Lid not tightened when shipped from container company.



Plannell-Allied 1-21-10  
 1045 CRA begins SB-122 — Am  
 SB-122 — Am  
 0-4" Med. brown topsoil w/ vegetation,  
 damp, cohesive, non-plastic  
 4"-2' Medium brown coarse sand  
 w/ small gravel, nc, np  
 2-4' Black fine grained sand, damp,  
 nc, np — Am  
 4-5' Light grey coarse grained sand,  
 damp, nc, np — Am  
 5-7' Med. brown coarse grained sand  
 with gravel, damp, nc, np  
 7-10' Med. brown fine grained  
 sand with small cobbles at 9.5',  
 damp, nc, np. — Am  
 10-12' Med. brown coarse sand with  
 trace clay, moist, cohesive, np.  
 12-15' Black coarse gravel with  
 coarse grained sand. Wet, nc, np  
 15-20' S&B — Am  
 DIB REMARKS — Am  
 0-2 = 0.6      8-10 = 0.7   16-18 = 0.3  
 2-4 = 0.5      10-12 = 0.6   18-20 = 0.5  
 4-6 = 0.6      12-14 = 0.5  
 6-8 = 0.4      14-16 = 0.4

Plannell-Allied 1/24/00  
 CRA Samples: 113 0-1 1120  
 114 8-10 1125  
 SUTRAL Samples: — Am  
 1120/5-20-52394-CB-013110-114  
 1140 CRA & SUTRAL break for lunch  
 1225 CRA begins advancing SB-124.  
 0-6 Topsoil, med. brown, cohesive, np  
 6"-2.5' - Medium brown coarse sand w/  
 little gravel, damp, nc, np — Am  
 2.5-4.5' Black coarse sand with  
 gravel, damp, nc, np — Am  
 4.5 Limestone rock layer, 2" thick  
 4.6-5.0' Med. brown coarse sand with  
 gravel, damp, nc, np — Am  
 5-6 Med. coarse grained sand with few  
 pieces of gravel, damp, nc, np — Am  
 6-8 Black coarse grained sand with  
 few gravel pieces, damp, nc, np. Quartz  
 at 7.5' — Am  
 8-10 Med brown fine grained sand with  
 little gravel, damp, nc, np. Paper resid  
 at 9.0' — Am  
 10-14 Black, coarse grained sand, moist,  
 paper residuals at 11'.  
 12.5 Clay layer, grey, damp, cohesive



## Plainville-Allied

1-21-10

plastic

12.5-15 Black gravel with little  
c.g. sand. Moist, nc, up — on  
15-20 SAB, medium brown from 17'  
to 20'. — on

## PID RESULTS

0-2 = 1.2	16-12 = 1.2
2-4 = 1.4	12-14 = 0.7
4-6 = 0.9	14-16 = 0.9
6-8 = 1.3	16-18 = 0.8
8-10 = 0.9	18-20 = 1.0

CRA SAMPLES: 115 0-1' 1315  
116 7-9' 1320

SULTRAC: S-50-56344-C3-012110-116 1310

1350 SB-126

0-6" Topsoil with fine grained sand,  
damp, medium brown — on

6"-2.5" Medium brown f.s. sand w  
trace clay and gravel, damp, slightly  
cohesive, np. — on

2.5-4.5" Light gray rock and fine  
grained sandy clay, nc, np. — on

4.5-5.5" Dark gray clay, druggish,  
np — on

5.5-6.5" Light gray coarse

## Plainville-Allied

1-21-10

grained sand, rock at 6.5'

6.5-10' - Dark gray clay with little  
fine grained sand, coh, plastic  
10-12 SAB, 12-15: black gravel  
with fine grained sand, wet, nc, np  
15-20 SAB (12-15) — on

## PID Results

0-2 = 0.8	10-12 = 0.7
2-4 = 0.8	12-14 = 1.2
4-6 = 0.8	14-16 = 0.6
6-8 = 1.2	16-18 = 0.7
8-10 = 1.2	18-20 = 1.0

CRA SAMPLES: 117 0-1' 1415

118 7.5-9.5 1420

SULTRAC: S-50-56344-C3-012110-118 1410

1410

1450 Medium brown to gray

SB-105

0-6" Medium brown to gray f.s.  
sand with trace clay, druggish,  
damp, nc, np. — on

6"-1.5" Gray coarse sand w/ small  
gravel, damp, nc, np — on  
1.5-6" Orangeish brown fine grained  
sand, damp, nc, np. — on



## Plainville - Allied

1-21-10

6' - 6" grey clay layer, cohesive, plastic damp.

6.5-10' - Light brown f.g. sand w/ limestone @ 10'.

10-12.5' - Medium to light brown f.g. sand w/ gravel and trace clay, moist, nc, np.

12.5-15' Med. brown gravel and coarse grained sand, wet, nc, np.

15-20' Gravel with little coarse grained sand, wet, nc, np.

PID RESULTS

0-2 = 0.6

2-4 = 0.8

4-6 = 0.6

6-8 = 0.7

8-10 = 0.5

10-12 = 0.4

12-14 = 0.2

14-16 = 0.7

16-18 = 0.8

18-20 = 0.7

CRA SAMPLES: 119 0-1' @ 1520

120 1-3' @ 1525 121 3-5' @ 1530

122 8-10' @ 1535 123 3-5' DUP @ 1540

1540 CRA begins logging SB-128.

0-4" Topsoil &amp; woody material, damp, slightly cohesive.

4"-5' Medium brown coarse grained sand w/ small gravel, damp, nc, np

## Plainville - Allied

1-21-10

5-10' Light brown coarse grained sand, damp, nc, np.

10-12.5' - S&amp;B

12.5' Grey fine grained sand w/ trace clay, damp, cohesive, np.

13-13.5' Dark brown fine grained sand, damp, nc, np.

13.5' Grey to black fine gravel sand, damp, nc, np.

14-15' Med. brown coarse grained sand and gravel, damp, nc, np.

15-20' Black poorly sorted gravel with coarse grained sand, wet, nc, np.

PID RESULTS

0-2 = 0.6

2-4 = 0.5

4-6 = 0.8

6-8 = 0.6

8-10 = 0.8

10-12 = 1.0

12-14 = 0.6

14-16 = 1.0

16-18 = 0.8

18-20 = 0.6

CRA SAMPLES: 124 0-1' @ 1615

125 11.5-13.5' @ 1620

1710 SULTRAC Malone complete data entry and turn over logbook to SULTRAC Kundek.

**APPENDIX C**  
**FIELD SAMPLE LOG**  
(Six Sheets)



SUBSURFACE SOIL SAMPLES										
SAMPLE LOCATION	SAMPLER	SAMPLE ID	DATE	INTERVAL, FT	SAMPLE TIME	Field Duplicates or MS/MSD	CRA sample count	SuITRAC sample count	SuITRAC Duplicate Count	SuITRAC MS/MSD count
SB-307	CRA	SO-56395-CB-011410-049	1/14/2010	6-8	1410	Duplicate				
SB-307	CRA	SO-56395-CB-011410-050	1/14/2010	8-10	1415		1			
VA-1	CRA	SO-56394-CB-011310-1010	1/13/2010	0-2	1315		1			
VA-1	CRA	SO-56394-CB-011310-1011	1/13/2010	8-10	1325		1			
VA-1	SuITRAC	S-SO-56394-CB-011310-1011	1/13/2010	8-10	1325			1		
SB-110	CRA	SO-56394-CB-011810-053	1/18/2010	0-1	1000		1			
SB-110	CRA	SO-56394-CB-011810-054	1/18/2010	8-10	1005		1			
SB-110	CRA	SO-56394-CB-011810-055	1/18/2010	8-10	1010	Duplicate				
SB-108	CRA	SO-56394-CB-011810-056	1/18/2010	0-1	1115		1			
SB-108	CRA	SO-56394-CB-011810-057	1/18/2010	6.5-8.5	1120		1			
SB-108	CRA	SO-56394-CB-011810-058	1/18/2010	8.5-10.0	1125		1			
SB-108	SuITRAC	S-SO-56394-CB-011810-057	1/18/2010	6.5-8.5	1125			1		
SB-107	CRA	SO-56394-CB-011810-059	1/18/2010	0-1	1300		1			
SB-107	CRA	SO-56394-CB-011810-060	1/18/2010	6.5-8.5	1305		1			
SB-107	CRA	SO-56394-CB-011810-061	1/18/2010	8.5-10.0	1310		1			
SB-101	CRA	SO-56394-CB-011810-062	1/18/2010	0-1	1345	MS/MSD	1			
SB-101	CRA	SO-56394-CB-011810-063	1/18/2010	6.8-8.8	1350		1			
SB-101	CRA	SO-56394-CB-011810-064	1/18/2010	8.8-9.5	1355		1			
SB-101	SuITRAC	S-SO-56394-CB-011810-062	1/18/2010	0-1	1345			1		
SB-106	CRA	SO-56394-CB-011810-067	1/18/2010	0-1	1505		1			
SB-106	CRA	SO-56394-CB-011810-068	1/18/2010	3.5-5.5	1510		1			
SB-106	CRA	SO-56394-CB-011810-069	1/18/2010	8-10	1515		1			
SB-106	CRA	SO-56394-CB-011810-070	1/18/2010	8-10	1520	Duplicate				
SB-111	CRA	SO-56394-CB-011810-071	1/18/2010	0-1	1605		1			
SB-111	CRA	SO-56394-CB-011810-072	1/18/2010	7-9	1605		1			
SB-111	SuITRAC	S-SO-56394-CB-011810-071	1/18/2010	0-1	1605			1		
SB-308	CRA	SO-56394-DR-011810-1020	1/18/2010	0-2	1410		1			
SB-308	CRA	SO-56394-DR-011810-1021	1/18/2010	3-5	1415		1			
SB-308	CRA	SO-56394-DR-011810-1022	1/18/2010	7.5-9.5	1420		1			

SUBSURFACE SOIL SAMPLES continued										
SAMPLE LOCATION	SAMPLER	SAMPLE ID	DATE	INTERVAL, FT	SAMPLE TIME	Field Duplicates or MS/MSD	CRA sample count	SuITRAC sample count	SuITRAC Duplicate Count	SuITRAC MS/MSD count
Test Pit 201	CRA	SO-56394-DR-011910-1024	1/19/2010	8-10	1130		1			
Test Pit 201	SuITRAC	S-SO-56394-DR-011910-1024	1/19/2010	8-10	1130			1		
Test Pit 202	CRA	SO-56394-DR-011910-1025	1/19/2010	1-2	1330		1			
Test Pit 202	CRA	SO-56394-DR-011910-1026	1/19/2010	1-2	1335	Duplicate				
Test Pit 202	CRA	SO-56394-DR-011910-1027	1/19/2010	8-10	1340		1			
SB-113	CRA	SO-56394-CB-011910-073	1/19/2010	0-1	905		1			
SB-113	CRA	SO-56394-CB-011910-074	1/19/2010	8-10	910		1			
SB-112	CRA	SO-56394-CB-011910-075	1/19/2010	0-1	950		1			
SB-112	CRA	SO-56394-CB-011910-076	1/19/2010	0-1	950	Duplicate				
SB-112	CRA	SO-56394-CB-011910-077	1/19/2010	6-8	950		1			
SB-112	SuITRAC	S-SO-56394-CB-011910-077	1/19/2010	6-8	950			1		
SB-112	SuITRAC	SD-SO-56394-CB-011910-077	1/19/2010	6-8	950	Duplicate			1	
SB-114	CRA	SO-56394-CB-011910-078	1/19/2010	0-1	1110		1			
SB-114	CRA	SO-56394-CB-011910-079	1/19/2010	8-10	1115		1			
SB-116	CRA	SO-56394-CB-011910-080	1/19/2010	0-1	1250		1			
SB-116	CRA	SO-56394-CB-011910-081	1/19/2010	7-9	1255		1			
SB-116	SuITRAC	S-SO-56394-CB-011910-081	1/19/2010	7-9	1255			1		
SB-116	CRA	SO-56394-CB-011910-082	1/19/2010	9.5-10	1300		1			
SB-117	CRA	SO-56394-CB-011910-083	1/19/2010	0-1	1410	MS/MSD	1			
SB-117	CRA	SO-56394-CB-011910-084	1/19/2010	8-10	1415		1			
SB-115	CRA	SO-56394-CB-011910-085	1/19/2010	0-1	1520		1			
SB-115	CRA	SO-56394-CB-011910-086	1/19/2010	3-5	1525		1			
SB-115	SuITRAC	S-SO-56394-CB-011910-086	1/19/2010	3-5	1525			1		
SB-115	CRA	SO-56394-CB-011910-087	1/19/2010	5-7	1530		1			
SB-115	CRA	SO-56394-CB-011910-088	1/19/2010	9-10	1535		1			
SB-119	CRA	SO-56394-CB-011910-089	1/19/2010	0-1	1620		1			
SB-119	CRA	SO-56394-CB-011910-090	1/19/2010	8-10	1625		1			
SB-119	SuITRAC	S-SO-56394-CB-011910-090	1/19/2010	8-10	1625			1		
Test Pit 203	CRA	SO-56394-DR-011910-1031	1/20/2010	0.5-1.5	845		1			
Test Pit 203	SuITRAC	S-SO-56394-DR-011910-1031	1/20/2010	0.5-1.5	845			1		
Test Pit 203	CRA	SO-56394-DR-011910-1032	1/20/2010	2-4	900		1			
Test Pit 203	CRA	SO-56394-DR-011910-1033	1/20/2010	8-10	925		1			



SUBSURFACE SOIL SAMPLES continued										
SAMPLE LOCATION	SAMPLER	SAMPLE ID	DATE	INTERVAL, FT	SAMPLE TIME	Field Duplicates or MS/MSD	CRA sample count	SulTRAC sample count	SulTRAC Duplicate Count	SulTRAC MS/MSD count
Test Pit 301	CRA	SO-56394-DR-011910-1034	1/20/2010	0-1	1135		1			
Test Pit 301	CRA	SO-56394-DR-011910-1035	1/20/2010	6-8	1210		1			
Test Pit 301	SulTRAC	S-SO-56394-DR-011910-1035	1/20/2010	6-8	1210			1		
Test Pit 301	CRA	SO-56394-DR-011910-1036	1/20/2010	8-10	1225		1			
Test Pit 302	CRA	SO-56394-DR-011910-1037	1/20/2010	0.5-1.5	1345		1			
Test Pit 302	CRA	SO-56394-DR-011910-1038	1/20/2010	4-6	1400		1			
Test Pit 302	SulTRAC	S-SO-56394-DR-011910-1038	1/20/2010	4-6	1400			1		
Test Pit 302	CRA	SO-56394-DR-011910-1039	1/20/2010	10-11	1425		1			
Test Pit 306	CRA	SO-56394-DR-011910-1041	1/20/2010	0.5-1.5	1515		1			
Test Pit 306	CRA	SO-56394-DR-011910-1042	1/20/2010	6-7	1535		1			
Test Pit 306	CRA	SO-56394-DR-011910-1043	1/20/2010	6-7	1540	Duplicate				
SB-144	CRA	SO-56394-CB-012010-092	1/20/2010	0-1	1000		1			
SB-144	CRA	SO-56394-CB-012010-093	1/20/2010	7-9	1005		1			
SB-144	CRA	SO-56394-CB-012010-093	1/20/2010	7-9	1005	Duplicate				
SB-145	CRA	SO-56394-CB-012010-094	1/20/2010	0-1	1100		1			
SB-145	CRA	SO-56394-CB-012010-095	1/20/2010	7.5-9.5	1105		1			
SB-145	SulTRAC	S-SO-56394-CB-012010-094	1/20/2010	0-1	1100			1		
SB-143	CRA	SO-56394-CB-012010-096	1/20/2010	0-1	1200		1			
SB-143	CRA	SO-56394-CB-012010-097	1/20/2010	8-10	1205		1			
SB-142	CRA	SO-56394-CB-012010-098	1/20/2010	0-1	1355		1			
SB-142	CRA	SO-56394-CB-012010-099	1/20/2010	8.5-10.5	1400		1			
SB-142	SulTRAC	S-SO-56394-CB-012010-099	1/20/2010	8.5-10.5	1350			1		
SB-102	CRA	SO-56394-CB-012010-100	1/20/2010	0-1	1430		1			
SB-102	CRA	SO-56394-CB-012010-101	1/20/2010	8-10	1435		1			
SB-118	CRA	SO-56394-CB-012010-102	1/20/2010	0-1	1545		1			
SB-118	CRA	SO-56394-CB-012010-103	1/20/2010	7.5-9.5	1550		1			
SB-103	CRA	SO-56394-CB-012010-104	1/20/2010	0-1	1640		1			
SB-103	CRA	SO-56394-CB-012010-105	1/20/2010	7-9	1645		1			
SB-103	SulTRAC	S-SO-56394-CB-012010-105	1/20/2010	7-9	1645			1		
Test Pit 303	CRA	SO-56394-DR-012110-1044	1/21/2010	0-1	835		1			
Test Pit 303	CRA	SO-56394-DR-012110-1045	1/21/2010	6-8	855		1			
Test Pit 303	SulTRAC	S-SO-56394-DR-012110-1045	1/21/2010	6-8	855			1		1

SUBSURFACE SOIL SAMPLES continued										
SAMPLE LOCATION	SAMPLER	SAMPLE ID	DATE	INTERVAL, FT	SAMPLE TIME	Field Duplicates or MS/MSD	CRA sample count	SulTRAC sample count	SulTRAC Duplicate Count	SulTRAC MS/MSD count
Test Pit 307	CRA	SO-56394-DR-012110-1046	1/21/2010	0.5-1.5	1020		1			
Test Pit 307	CRA	SO-56394-DR-012110-1047	1/21/2010	0.5-1.5	1025	Duplicate				
Test Pit 307	CRA	SO-56394-DR-012110-1048	1/21/2010	8-10	1045		1			
Test Pit 307	CRA	SO-56394-DR-012110-1049	1/21/2010	2-3	1120		1			
Test Pit 307	SulTRAC	S-SO-56394-DR-012110-1049	1/21/2010	2-3	1120			1		
Test Pit 307	SulTRAC	SD-SO-56394-DR-012110-1049	1/21/2010	2-3	1125	Duplicate			1	
Test Pit 305	CRA	SO-56394-DR-012110-1050	1/21/2010	0.5-1.5	1340		1			
Test Pit 305	SulTRAC	S-SO-56394-DR-012110-1050	1/21/2010	0.5-1.5	1340			1		
Test Pit 305	CRA	SO-56394-DR-012110-1051	1/21/2010	2-4	1350	MS/MSD	1			
Test Pit 305	CRA	SO-56394-DR-012110-1052	1/21/2010	6-8	1405		1			
Test Pit 304	CRA	SO-56394-DR-012110-1053	1/21/2010	0.5-1.5	1455		1			
Test Pit 304	CRA	SO-56394-DR-012110-1054	1/21/2010	2-4	1505		1			
Test Pit 304	CRA	SO-56394-DR-012110-1055	1/21/2010	5-7	1515		1			
SB-120	CRA	SO-56394-CB-012110-106	1/21/2010	0-1	905		1			
SB-120	CRA	SO-56394-CB-012110-107	1/21/2010	7.75-9.75	910		1			
SB-120	CRA	SO-56394-CB-012010-108	1/21/2010	0-1	915	Duplicate				
SB-120	SulTRAC	S-SO-56394-CB-012110-107	1/21/2010	7.75-9.75	900			1		
SB-104	CRA	SO-56394-CB-012110-109	1/21/2010	0-1	950		1			
SB-104	CRA	SO-56394-CB-012110-110	1/21/2010	3-5	955	MS/MSD	1			
SB-104	CRA	SO-56394-CB-012110-111	1/21/2010	5-7	1000		1			
SB-104	CRA	SO-56394-CB-012110-112	1/21/2010	8-10	1005		1			
SB-104	SulTRAC	S-SO-56394-CB-012110-109	1/21/2010	0-1	1000			1		
SB-122	CRA	SO-56394-CB-012110-113	1/21/2010	0-1	1120		1			
SB-122	CRA	SO-56394-CB-012110-114	1/21/2010	8-10	1125		1			
SB-122	SulTRAC	S-SO-56394-CB-012110-114	1/21/2010	8-10	1120			1		
SB-124	CRA	SO-56394-CB-012110-115	1/21/2010	0-1	1315		1			
SB-124	CRA	SO-56394-CB-012110-116	1/21/2010	8-10	1320		1			
SB-124	SulTRAC	S-SO-56394-CB-012110-116	1/21/2010	8-10	1310			1		
SB-126	CRA	SO-56394-CB-012110-117	1/21/2010	0-1	1415		1			
SB-126	CRA	SO-56394-CB-012110-118	1/21/2010	7.5-9.5	1420		1			
SB-126	SulTRAC	S-SO-56394-CB-012110-118	1/21/2010	7.5-9.5	1410			1		
SB-105	CRA	SO-56394-CB-012110-119	1/21/2010	0-1	1520		1			
SB-105	CRA	SO-56394-CB-012110-120	1/21/2010	1-3	1525		1			
SB-105	CRA	SO-56394-CB-012110-121	1/21/2010	3-5	1530		1			
SB-105	CRA	SO-56394-CB-012110-122	1/21/2010	8-10	1535		1			
SB-128	CRA	SO-56394-CB-012110-123	1/21/2010	3-5	1540	Duplicate				
SB-128	CRA	SO-56394-CB-012110-124	1/21/2010	0-1	1615		1			
SB-128	CRA	SO-56394-CB-012110-125	1/21/2010	11.5-13.5	1620		1			
Totals							96	23	3	2

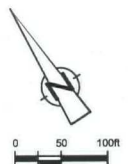
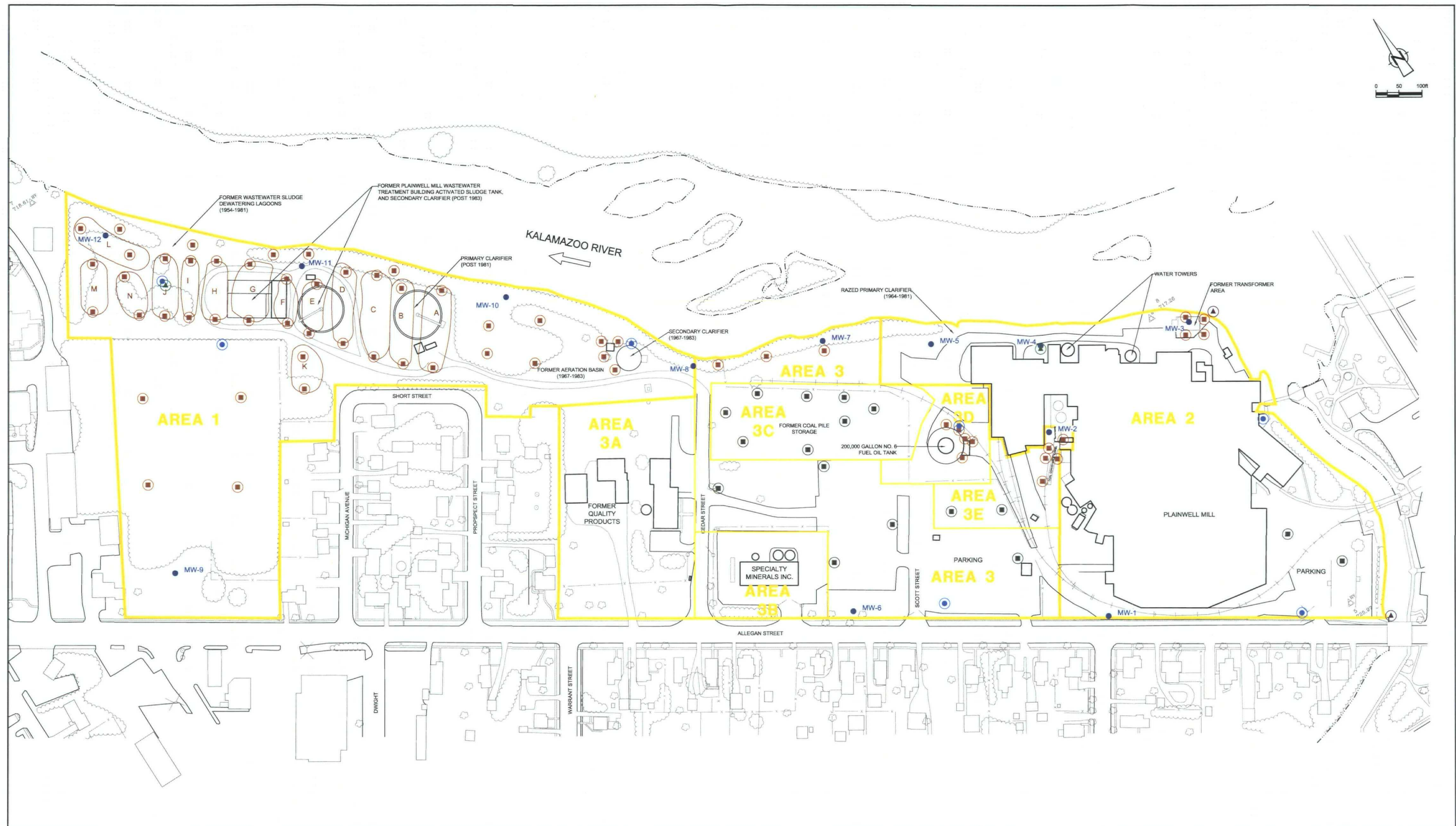


VAS SOIL SAMPLES										
SAMPLE LOCATION	SAMPLER	SAMPLE ID	DATE	INTERVAL, FT	SAMPLE TIME	Field Duplicates or MS/MSD	CRA sample count	SuITRAC sample count	SuITRAC Duplicate Count	SuITRAC MS/MSD count
VA-1	CRA	VAS-56394-DR-011110-1001	1/11/2010	10-14	1600		1			
VA-1	SuITRAC	S-VAS-56394-DR-011110-1001	1/11/2010	10-14	1600			1		
VA-1	CRA	VAS-56394-DR-011210-1002	1/12/2010	14-18	945		1			
VA-1	CRA	VAS-56394-DR-011210-1003	1/12/2010	18-22	1055		1			
VA-1	CRA	VAS-56394-DR-011210-1004	1/12/2010	18-22	1055	Duplicate				
VA-1	CRA	VAS-56394-DR-011210-1005	1/12/2010	22-26	1345		1			
VA-1	CRA	VAS-56394-DR-011210-1006	1/12/2010	26-30	1530		1			
VA-1	CRA	VAS-56394-DR-011310-1007	1/13/2010	30-34	840		1			
VA-1	CRA	VAS-56394-DR-011310-1008	1/13/2010	34-38	1010		1			
VA-1	SuITRAC	S-VAS-56394-DR-011310-1008	1/13/2010	34-38	1010			1		
VA-1	SuITRAC	SD-VAS-56394-DR-011310-1008	1/13/2010	34-38	1010	Duplicate			1	
VA-1	CRA	VAS-56394-DR-011310-1009	1/13/2010	38-42	1145		1			
VA-2	CRA	VAS-56394-DR-011310-1012	1/13/2010	6-10	1635		1			
VA-2	CRA	VAS-56394-DR-011410-1013	1/14/2010	10-14	845		1			
VA-2	SuITRAC	S-VAS-56394-DR-011410-1014	1/14/2010	10-14	845			1		
VA-2	CRA	VAS-56394-DR-011410-1014	1/14/2010	14-18	1040		1			
VA-2	CRA	VAS-56394-DR-011410-1015	1/14/2010	14-18	1040	Duplicate				
VA-2	CRA	VAS-56394-DR-011410-1016	1/14/2010	18-22	1250		1			
VA-2	CRA	VAS-56394-DR-011410-1017	1/14/2010	22-26	1400		1			
VA-2	CRA	VAS-56394-DR-011810-1018	1/18/2010	26-30	955		1			
VA-2	SuITRAC	VAS-56394-DR-011810-1018	1/18/2010	26-30	955			1		
VA-2	CRA	VAS-56394-DR-011810-1019	1/18/2010	30-32	1135		1			
Totals							15	4	1	

SURFACE WATER SAMPLES										
SAMPLE LOCATION	SAMPLER	SAMPLE ID	DATE	INTERVAL, FT	SAMPLE TIME	Field Duplicates or MS/MSD	CRA sample count	SuITRAC sample count	SuITRAC Duplicate Count	SuITRAC MS/MSD count
SW-1	EV	SW-56394-EV-011910-1028	1/19/2010				1			
SW-2	EV	SW-56394-EV-011910-1029	1/19/2010				1			
Totals							2			
SURFACE SOIL SAMPLES										
SAMPLE LOCATION	SAMPLER	SAMPLE ID	DATE	INTERVAL, FT	SAMPLE TIME	Field Duplicates or MS/MSD	CRA sample count	SuITRAC sample count	SuITRAC Duplicate Count	SuITRAC MS/MSD count
SS-105	CRA	SS-56394-EV-011210-011	1/12/2010	0-1			1			
SS-103	CRA	SS-56394-EV-011210-012	1/12/2010	0-1	1320		1			
SS-103	SuITRAC	S-SS-56394-EV-011210-012	1/12/2010	0-1	1320			1		
SS-102	CRA	SS-56394-EV-011210-013	1/12/2010	0-1	1345		1			
SS-100	CRA	SS-56394-EV-011210-010	1/12/2010	0-1	1415		1			
SS-107	CRA	SS-56394-EV-011210-015	1/12/2010	0-1	1120		1			
SS-101	CRA	SS-56394-EV-011310-021	1/13/2010	0-1	1135		1			
SS-101	SuITRAC	S-SS-56394-EV-011310-021	1/13/2010	0-1	1135			1		
SS-104	CRA	SS-56394-EV-011310-022	1/13/2010	0-1	1325		1			
SS-106	CRA	SS-56394-EV-011310-023	1/13/2010	0-1	1345		1			
SS-106	CRA	SS-56394-EV-011310-024	1/13/2010	0-1	1350	Duplicate				
Total							8	2	0	0



**ATTACHMENT 1**  
**CRA SAMPLE LOCATION FIGURES**  
(Four Sheets)

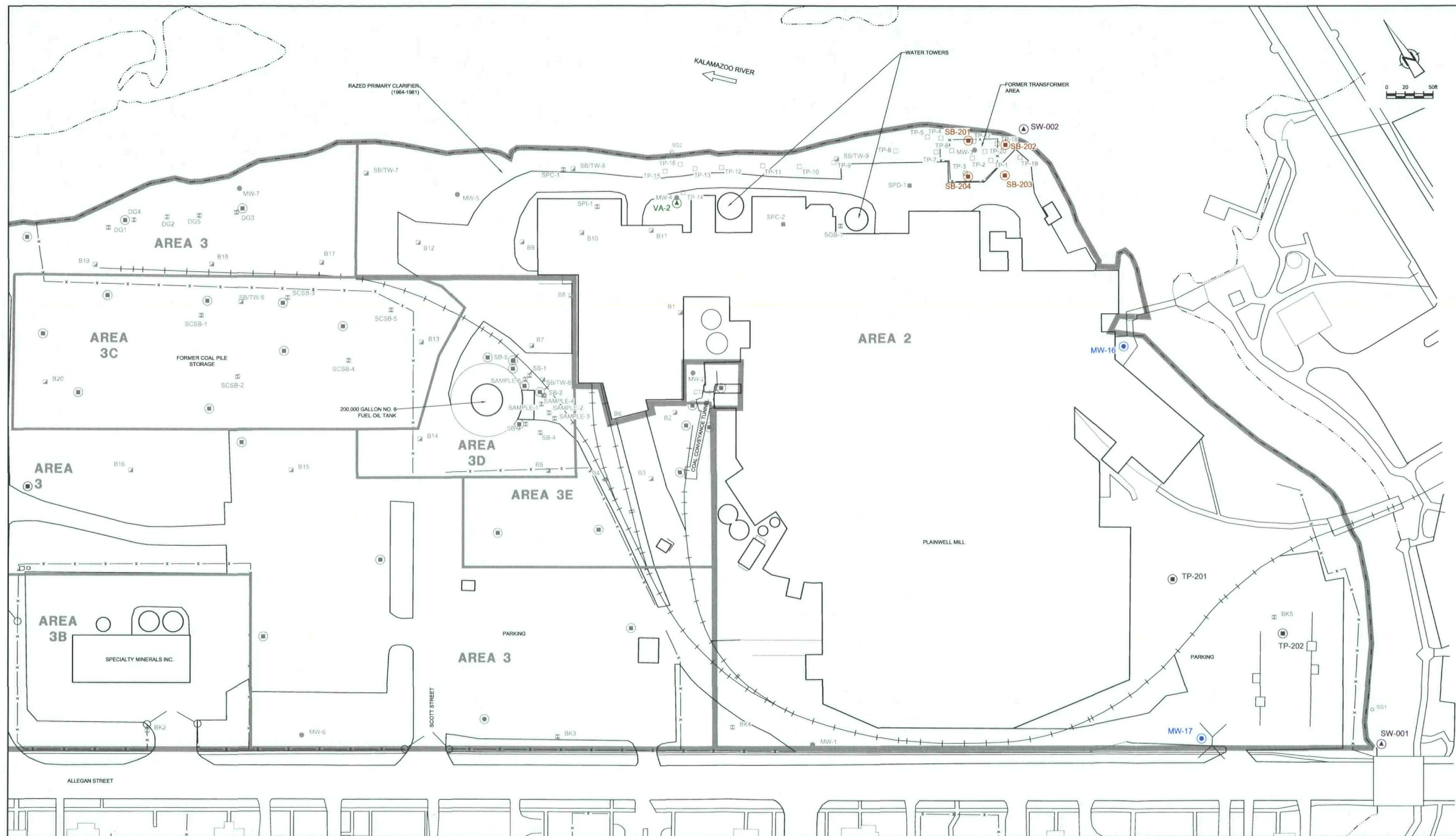


<p><b>LEGEND</b></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>— AREA BOUNDARY</p> <p>--- SHORELINE</p> <p>--- FORMER WASTEWATER SLUDGE DEWATERING LAGOONS</p> <p>-x-x- FENCELINE</p> <p>-+--+ RAILWAY</p> <p>~ VEGETATION</p> </div> <div style="width: 45%;"> <p> SURVEY BENCHMARK</p> <p> EXISTING MONITORING WELL LOCATION</p> <p> PROPOSED MONITORING WELL LOCATION</p> <p> PROPOSED SOIL BORING LOCATION</p> <p> PROPOSED TEST PIT LOCATION</p> <p> PROPOSED SURFACE WATER SAMPLE LOCATION</p> <p> PROPOSED VERTICAL AQUIFER TESTING LOCATION</p> </div> </div>	<p>SCALE VERIFICATION: THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.</p>	<p>Approved _____</p>	<p><b>SITE-WIDE PROPOSED PHASE II SAMPLING LOCATIONS</b></p> <p><b>PHASE II REMEDIAL INVESTIGATION WORK PLAN</b></p> <p><b>FORMER PLAINWELL, INC. MILL PROPERTY</b></p> <p><b>PLAINWELL, MICHIGAN</b></p>	<div style="text-align: center;"> <p><b>CONESTOGA-ROVERS &amp; ASSOCIATES</b></p> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Source References:</td> <td colspan="2">Date: MAY 2009</td> </tr> <tr> <td>Project Manager: G. CARLI</td> <td>Reviewed By: E. STAHL</td> <td>Designed By: C. JACOBI</td> <td>Drawn By: C. JACOBI</td> </tr> <tr> <td>Scale: 1:100</td> <td>Project No: 056394-04</td> <td>Report No: 002</td> <td>Drawing No: FIGURE 5.1</td> </tr> </table>	Source References:		Date: MAY 2009		Project Manager: G. CARLI	Reviewed By: E. STAHL	Designed By: C. JACOBI	Drawn By: C. JACOBI	Scale: 1:100	Project No: 056394-04	Report No: 002	Drawing No: FIGURE 5.1
Source References:		Date: MAY 2009														
Project Manager: G. CARLI	Reviewed By: E. STAHL	Designed By: C. JACOBI	Drawn By: C. JACOBI													
Scale: 1:100	Project No: 056394-04	Report No: 002	Drawing No: FIGURE 5.1													









<b>LEGEND</b>		SCALE VERIFICATION: THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.		Approved		<b>AREA 2 PROPOSED PHASE II SAMPLE LOCATIONS</b>			
AREA BOUNDARY						PHASE II REMEDIAL INVESTIGATION WORK PLAN		Source Reference: RMT PROJ. 00-05121.03 Date: MAY 2009	
SHORELINE						FORMER PLAINWELL, INC. MILL PROPERTY		Project Manager: G. CARLI Reviewed By: E. STAHL Designed By: C. JACOBI	
RAILWAY						PLAINWELL, MICHIGAN		Scale: 1:100 Project No: 056394-04 Report No: 002 Drawing No: FIGURE 5.3	
FENCELINE									
VEGETATION									
PROPOSED MONITORING WELL LOCATION		PREVIOUS SOIL SAMPLE LOCATION							
PROPOSED SOIL BORING LOCATION		PREVIOUS SOIL BORING LOCATION							
PROPOSED SURFACE WATER SAMPLE LOCATION		PREVIOUS TEST PIT							
PROPOSED TEST PIT LOCATION		PREVIOUS SEDIMENT SAMPLE LOCATION							
PROPOSED VERTICAL AQUIFER TESTING LOCATION		PREVIOUS GROUNDWATER MONITORING WELL LOCATION							
		PREVIOUS GROUNDWATER SAMPLE LOCATION							
		PREVIOUS STAFF GAUGE LOCATION (APPROXIMATE)							



